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NOTES ON THE LIGNEOUS PLANTS DESCRIBED BY  
LEVEILLE FROM EASTERN ASIA<sup>1</sup>

ALFRED REHDER

CLETHRACEAE

**Clethra Bodinieri** Léveillé in Fedde, Rep. Spec. Nov. x. 475 (1912); Fl. Kouy-Tchéou, 147 (1914).

CHINA. K w e i c h o u : Pin-fa, près ruisseaux, montagnes, *J. Cavalerie*, no. 510, Sept. 24, 1902 (holotype; photo. in A. A.)

This species seems closely related to *C. Fabri* Hance from which it is easily distinguished by the rather narrow remotely denticulate leaves with only 5-10 small mucro-like teeth on each side and by the very slender pedicels 6-7 mm. long. The specimen is in young fruit. Handel-Mazzetti according to a note on the type sheet refers to this species also Ching no. 5734 and 5804 which I have not seen.

**Clethra Cavaleriei** Léveillé in Fedde, Rep. Spec. Nov. x. 476 (1912); Fl. Kouy-Tchéou, 147 (1914).

*Clethra Esquirolii* Léveillé, l. c. 475 (1912); l. c. 147 (1914).

*Clethra lineata* Léveillé in Fedde, Rep. Spec. Nov. xii. 534 (1913); Fl. Kouy-Tchéou 148 (1914).

CHINA. K w e i c h o u : Pin-fa, *J. Cavalerie*, no. 5 (not 35), July 10, 1902, "haut 1 - 2 mètres, fl. blanches, légèrement odorantes" (holotype of *C. Cavaleriei*; photo. in A. A.); environs de Tou-chan, *J. Cavalerie*, July 19, 1898 (syntype of *C. Esquirolii*; merotype and photo. in

<sup>1</sup>Continued from p. 117; for preceding parts see Vol. x. 108-132, 164-196; xii. 275-281; xiii. 229-332; xiv. 223-252; xv. 1-27.



A. A.); Hoa-ouan-jao, *J. Esquirol*, no. 651, Aug. 1905, "fl. blanche" (syntype of *C. Esquirolii*; photo. in A. A.); moulins de Tong-tchéou, *J. Esquirol*, no. 3238, July 10, 1912 (holotype of *C. lineata*; photo. in A. A.).

The specimens enumerated above are apparently all conspecific and closely related to *C. Fargesii* Franch. from which they are readily distinguished by the usually solitary raceme or occasionally with one or two additional smaller ones, and by the larger flowers with oblong-lanceolate sepals and glabrous filaments. From *C. Delavayi* Franch. and *C. monostachya* Rehd. & Wilson they differ in the glabrous style and in the petals being sparingly pilose inside.

I have adopted the name *C. Cavaleriei* for the following reasons though in the original article *C. Esquirolii* appears on the preceding page: (1) the name has been already used by Dr. Handel-Mazzetti who has distributed specimens under this name, (2) the type of *C. Cavaleriei* is a specimen in good flowering condition. Esquirol's no. 651 which must be considered, on account of the name, the type of *C. Esquirolii*, is in a rather poor condition.

*Clethra Cavaleriei* has been collected in Kweichou also by Handel-Mazzetti (no. 10557) and by Steward, Chiao & Cheo (no. 394).

***Clethra kaipoensis*** Léveillé in Fedde, Rep. Spec. Nov. x. 475 (1912); Fl. Kouy-Tchéou, 147 (1914).

*Clethra pinfaensis* Léveillé, l. c. 476 (1912); l. c. 148 (1914).

CHINA. K w e i c h o u : Tsin-gay (Kai-po), montagnes, *J. Cavalerie*, no. 1221, August 5, 1903 "haut 1 à 2 m., fl. blanches" (holotype of *C. kaipoensis*; photo. in A. A.); Pin-fa, *J. Cavalerie*, no. 346, Aug. 31, 1902 (holotype of *C. pinfaensis*; photo. in A. A.).

This species is apparently closely related to *C. Fargesii* Franch. but is easily distinguished by the rather shaggy and fulvous pubescence of the inflorescence, not close and whitish gray, by the short pedicels 1-3 mm. long and the short ovate-lanceolate bracts which even in the very young inflorescence do not exceed the flower-buds.

*Clethra kaipoensis* has been collected in Kweichou also by Handel-Mazzetti (nos. 10766 and 10997) who has distributed these numbers as *C. pinfaensis*, but as Cavalerie no. 1221 is a much better specimen and precedes *C. pinfaensis* in Léveillé's enumeration I have adopted *C. kaipoensis* as the name for this species.



RHODODENDRON L.<sup>1</sup>Subgen. I. **EURHODODENDRON** Endl.

Sect. 1. LEIORHODION Rehd.

ARBOREUM Series: ARGYROPHYLLUM Subseries

**Rhododendron denudatum** Léveillé in Fedde, Rep. Spec. Nov. XIII. 339 (1914); Cat. Pl. Yun-Nan, 89 (1916). — Tagg in Rhodod. Soc. Notes, III. 228, 231 (1928); in Spec. Rhodod. 24 (1930).

*Rhododendron xanthoneuron* Léveillé in Fedde, Rep. Spec. Nov. XIII. 340 (1914); Cat. Pl. Yun-Nan, 94 (1916).

CHINA. Y u n n a n : rochers de Tien-sin, 3000 m., *E. E. Maire*, April 1913 (holotype of *Rh. denudatum*); mont Te-pe-lou, 3200 m., *E. E. Maire*, May 1913 (holotype of *Rh. xanthoneuron*).

*Rhododendron denudatum* is closely related to *Rh. floribundum* Franch. It is probably a valid species.

**Rhododendron farinosum** Léveillé in Fedde, Rep. Spec. Nov. XIII. 340 (1914); Cat. Pl. Yun-Nan, 90 (1916). — Tagg in Rhodod. Soc. Notes, III. 229 (1928); in Spec. Rhodod. 25 (1930).

CHINA. Y u n n a n : flanc du Io-chan, 3200 m., *E. E. Maire*, May 1913 (holotype).

This is almost certainly a valid species and closely related to *Rh. floribundum* Franch. and *Rh. denudatum* Lévl.

TALIENSE Series: ADENOGYNUM Subseries

**Rhododendron cruentum** Léveillé in Fedde, Rep. Spec. Nov. XII. 284 (1913); Cat. Pl. Yun-Nan, 89 (1916). — Tagg in Rhodod. Soc. Notes, III. 228 (1928); in Spec. Rhodod. 640 (1930).

CHINA. Y u n n a n : brousse du plateau de Ta-hai-tse, 3200 m., *E. E. Maire*, May 1912 (holotype).

This is closely related to *Rh. Bureavi* Franch.

LACTEUM Series

**Rhododendron lacteum** Franchet in Bull. Soc. Bot. France, XXXIII. 231 (1886). — Tagg in Rhodod. Soc. Notes, III. 230 (1928); in Spec. Rhodod. 381 (1930).

*Rhododendron Mairei* Léveillé in Fedde, Rep. Spec. Nov. XII. 285 (1913); Cat. Pl. Yun-Nan, 92 (1916).

CHINA. Y u n n a n : montagnes de Lai-teou-po, 3000 m., *E. E. Maire*, May 1912 (holotype of *Rh. Mairei*).

<sup>1</sup>The following determinations and comments (except those of the subgenus *Anthodendron*) on Léveillé's specimens were kindly sent me by Sir William Wright Smith, Regius Keeper of the Royal Botanic Garden of Edinburgh, who with Mr. H. F. Tagg has for years made a special study of Chinese rhododendrons.



## THOMSONI Series: SOULIEI Subseries

**Rhododendron Souliei** Franchet in Jour. de Bot. IX. 393 (1895). — Tagg in Rhodod. Soc. Notes, III. 228 (1928); in Spec. Rhodod. 732 (1930).

*Rhododendron cordatum* Léveillé in Bull. Géog. Bot. XXIV. 282 (1914); Cat. Pl. Yun-Nan, 89, fig. 21 (1916).

CHINA. Y u n n a n : sommet du Io-chan, 3400 m., *E. E. Maire*, June 1913 (holotype of *Rh. cordatum*).

The material of *Rh. cordatum* is very fragmentary, but there is little doubt that it is *Rh. Souliei* Franch.

## FORTUNEI Series: FORTUNEI Subseries

**Rhododendron decorum** Franchet in Bull. Soc. Bot. France, XXXIII. 230 (1886). — Tagg in Rhodod. Soc. Notes, III. 227, 229 (1928); in Spec. Rhodod. 269 (1930).

*Rhododendron Franchetianum* Léveillé in Bull. Soc. Agric. Sci. Arts Sarthe, XXXIX. 46 (1903); Cat. Pl. Yun-Nan, 91 (1916).

?*Rhododendron albicaule* Léveillé in Fedde, Rep. Spec. Nov. XIII. 148 (1914). — Tagg in Spec. Rhodod. 851 (1930).

*Rhododendron Giraudiasii* Léveillé in Fedde, Rep. Spec. Nov. XIII. 340 (1914).

CHINA. K w e i c h o u : montagnes de Sin-tchen, près Hin-y-hien, *J. Cavalerie*, no. 3923, June 1912 (holotype of *Rh. albicaule*). Y u n n a n : rochers, mont de Siao-ou-long, 2700 m., *E. E. Maire*, June 1917 (holotype of *Rh. Giraudiasii*); environs de Yunnan-sen, sur les hautes montagnes bordant la plaine, *E. Bodinier*, Nov. 11, 1896, *F. Ducloux*, March 28, 1897 "fort arbuste de 2 m.; floraison précoce; fleurs blanches avec quelque pointillé à la partie supérieure" (syntypes of *Rh. Franchetianum*).

The material of *Rh. albicaule* in the Herbarium Léveillé is *Rh. decorum*, but Léveillé's description does not fit the specimen well. In Flore du Kouy-Tchéou, p. 152, Léveillé cites *Rh. albicaule* as a synonym of *Rh. Cavaleriei*, a species of the Stamineum Series. This is obviously an error, as the specimen under Cavalerie 3923 is *Rh. decorum*. Moreover, Léveillé's description does not fit in with a member of the Stamineum series.

## FALCONERI Series

**Rhododendron rex** Léveillé in Fedde, Rep. Spec. Nov. XIII. 340 (1914); Cat. Pl. Yun-Nan, 93 (1910). — Tagg in Rhodod. Soc. Notes, III. 230 (1928); in Spec. Rhodod. 250 (1930).

CHINA. Y u n n a n : mont Io-chan, 3200 m., *E. E. Maire*, May 1913 (holotype).



## Sect. 2. LEPIIPHERUM G. Don

## MADDENII Series: MEGACALYX Subseries

**Rhododendron liliiflorum** Léveillé in Fedde, Rep. Spec. Nov. XII. 102 (1913); Fl. Kouy-Tchéou, 153 (1914). — Hutchinson in Notes Bot. Gard. Edinb. XII. 33, fig. 5 (1919); in Spec. Rhodod. 493 (1930). — Tagg in Rhodod. Soc. Notes, III. 229 (1928).

CHINA. K w e i c h o u : Pin-fa, Juin-ou-chan, *J. Cavalerie*, no. 54, June 3 and July 15, 1902 (syntypes).

## MADDENII Series: CILIICALYX Subseries

**Rhododendron Lyi** Léveillé in Fedde, Rep. Spec. Nov. XIII. 147 (1914); Fl. Kouy-Tchéou, 153 (1914). — Hutchinson in Notes Bot. Gard. Edinb. XII. 33 (1919); in Spec. Rhodod. 467 (1930). — Tagg in Rhodod. Soc. Notes, III. 230 (1928).

CHINA. K w e i c h o u : Gan-chouen, *J. Cavalerie*, no. 3883, April 1912 (holotype).

**Rhododendron missionarium** Léveillé in Bull. Géog. Bot. xxv. 20 (1915); Cat. Pl. Yun-Nan, 92 (1916). — Hutchinson in Not. Bot. Gard. Edinb. XII. 55 (1919); in Spec. Rhodod. 468 (1930). — Tagg in Rhodod. Soc. Notes, III. 230 (1928).

CHINA. Y u n n a n : rochers de Tong-koua-pin, 3000 m., *E. E. Maire*, April 1912 (holotype).

## HELIOLEPIS Series

**Rhododendron Leclerei** in Fedde, Rep. Spec. Nov. XII. 284 (1913); Cat. Pl. Yun-Nan, 92 (1916). — Tagg in Rhodod. Soc. Notes, III. 229 (1928). — Hutchinson in Spec. Rhodod. 326 (1930).

CHINA. Y u n n a n : haut plateau de Ta-hai-tse, 3200 m., *E. E. Maire*, May 1912 (holotype).

## TRIFLORUM Series: TRIFLORUM Subseries

**Rhododendron lutescens** Franchet in Bull. Soc. Bot. France, xxxiii. 235 (1886). — Hutchinson in Bot. Mag. cXLVI. t. 8851 (1920); in Spec. Rhodod. 789 (1930). — Tagg in Rhodod. Soc. Notes, III. 228, 229 (1928).

*Rhododendron Lemeei* Léveillé in Fedde, Rep. Spec. Nov. XIII. 339 (1913); Cat. Pl. Yun-Nan, 92 (1916).

*Rhododendron Blinii* Léveillé in Bull. Géog. Bot. xxv. 21 (1915); Cat. Pl. Yun-Nan, 88 (1916).

CHINA. Y u n n a n : monts de Ta-tchai, 3000 m., *E. E. Maire*, April 1913 (holotype of *Rh. Lemeei*); brousse de coteaux à Tchen-fong-tchan, 550 m., *E. E. Maire*, May 1912 (holotype of *Rh. Blinii*).

*Rhododendron Lemeei* and *Rh. Blinii* were first identified with *Rh. rubiginosum* by H. F. Tagg (l. c.).



## TRIFLORUM Series: YUNNANENSE Subseries

**Rhododendron tatsienense** Franchet in Jour. de Bot. ix. 394 (1895). — Tagg in Rhodod. Soc. Notes, III. 230 (1928); in Spec. Rhodod. 853 (1930). — Hutchinson in Spec. Rhodod. 812 (1930).

*Rhododendron tapelouense* Léveillé in Bull. Géog. Bot. xxv. 20 (1915); Cat. Pl. Yun-Nan, 93 (1916).

CHINA. Y u n n a n : mont Ta-pé-lou, 3200 m., *E. E. Maire*, May 1912 (holotype of *Rh. tapelouense*).

*Rhododendron tapelouense* was first identified with *Rh. tatsienense* by Tagg (l. c.).

**Rhododendron siderophyllum** Franchet in Jour. de Bot. xii. 262 (1898). — Tagg in Rhodod. Soc. Notes, III. 229 (1928); in Spec. Rhodod. 852 (1928). — Hutchinson in Spec. Rhodod. 809 (1930).

*Rhododendron Jahandiezii* Léveillé in Fedde, Rep. Spec. Nov. XIII. 340 (1914); Cat. Pl. Yun-Nan, 92 (1916).

CHINA. Y u n n a n : flanc du Io-chan, 3200 m., *E. E. Maire*, May 1913 (holotype of *Rh. Jahandiezii*).

**Rhododendron leucandrum** Léveillé in Fedde, Rep. Spec. Nov. XII. 103 (1913); Fl. Kouy-Tchéou, 153 (1914). — Tagg in Rhodod. Soc. Notes, III. 229 (1928); in Spec. Rhodod. 852 (1930).

CHINA. K w e i c h o u : Kiao-tche-che, *J. Cavalerie*, no. 1254, April 10, 1902 (holotype).

*Rhododendron leucandrum* is referred doubtfully to *Rh. siderophyllum* in Species of Rhododendron (l. c.), but it has an unusually elongated calyx and the lepidote scales are not the same in the two species. It is not exactly equivalent to any described species of the Triflorum Series and may stand till further material is available. It is founded on Cavalerie no. 1254 which is a mixed gathering; part of the material is named *Rh. Seguini* which is *Rh. Bodinieri*, but the remaining part is no doubt what Léveillé intended as *Rh. leucandrum*.

**Rhododendron Bodinieri** Franchet in Jour. de Bot. xii. 257 (1898). — Tagg in Rhodod. Soc. Notes, III. 230 (1928). — Hutchinson in Spec. Rhodod. 794 (1930).

*Rhododendron rubro-punctatum* Léveillé & Vaniot in Fedde, Rep. Spec. Nov. ix. 448 (1911); Fl. Kouy-Tchéou, 153 (1914).

*Rhododendron Seguini* Léveillé in Fedde, Rep. Spec. Nov. XIII. 148 (1914).

CHINA. K w e i c h o u : Pin-fa, mont du Ouang-tse, *J. Cavalerie*, Sept. 1908 (holotype of *Rh. rubro-punctatum*); Kiao-tche-tche et Gan-chouen, *J. Cavalerie*, no. 1254, April 10, 1902 (holotype of *Rh. Seguini*).



*Rhododendron Seguini* was referred to *Rh. rubro-punctatum* by Lévillé in his Flore du Kouy-Tchéou and both species were identified by Tagg (l. c.) with *Rh. Bodinieri*.

**Rhododendron caeruleum** Lévillé in Fedde, Rep. Spec. Nov. XII. 284 (1913); Cat. Pl. Yun-Nan, 89 (1916); Cat. Ill. Seu-Tchouen, pl. 25 (1918) MS. — Tagg in Rhodod. Soc. Notes, III. 228 (1928).

*Rhododendron rarasquameum* Balfour f. in Notes Bot. Gard. Edinb. x. 137 (1917).

*Rhododendron eriandrum* Lévillé apud Hutchinson in Spec. Rhodod. 798, 851 (1930).

CHINA. Y u n n a n : mont de Mo-tsou (fleuve Bleu), *E. E. Maire*, May 1912 (holotype of *Rh. caeruleum*); Niou-ko-tien-tien, *E. E. Maire*, May, 1911, "c. 60 cm. — 1 m., fl. violettes" (holotype of *Rh. eriandrum*).

In Species of *Rhododendron* *Rh. eriandrum* Lévl., a name appearing in Lévillé's handwriting on the specimen cited above, but remaining apparently unpublished, has been taken up as the valid name for this species, and *Rh. caeruleum* Lévl. referred to it as a doubtful synonym, but *Rh. caeruleum* is clearly the oldest name and doubtless identical with *Rh. rarasquameum* and *Rh. eriandrum*. The type of *Rh. caeruleum* is cited among the syntypes of *Rh. rarasquameum*.

#### LAPPONICUM Series

**Rhododendron polycladum** Franchet in Bull. Soc. Bot. France, XXXIII. 234 (1886). — Tagg in Rhodod. Soc. Notes, III. 230 (1928). — Hutchinson in Spec. Rhodod. 421, 853 (1930).

*Rhododendron nanum* Lévillé in Fedde, Rep. Spec. Nov. XII. 285 (1913); Cat. Pl. Yun-Nan, 92 (1916).

CHINA. Y u n n a n : haut plateau de Ta-hai-tse, 3200 m., *E. E. Maire*, May 1912 (holotype of *Rh. nanum*).

*Rhododendron nanum* was first referred to *Rh. polycladum* Franch. by Tagg (l. c.).

#### VACCINOIDES Series

**Rhododendron euonymifolium** Lévillé in Fedde, Rep. Spec. Nov. XII. 103 (1913); Fl. Kouy-Tchéou, 152 (1914). — Tagg in Rhodod. Soc. Notes, III. 228 (1928). — Hutchinson in Spec. Rhodod. 820 (1930).

CHINA. K w e i c h o u : Pin-fa, *J. Cavalerie*, no. 242, Aug. 21, 1902 (syntype); Hoa-ouay-jao, *J. Esquirol*, no. 661, Aug. 1905 (syntype).

This is, apparently a valid species.

#### SCABRIFOLIUM Series

**Rhododendron spinuliferum** Franchet in Jour. de Bot. IX. 399



(1895). — Craib in Bot. Mag. cxxxvii. t. 8408 (1911). — Tagg in Rhodod. Soc. Notes, III. 229 (1928). — Hutchinson in Spec. Rhodod. 606, 852 (1930).

*Rhododendron Duclouxii* Léveillé in Bull. Soc. Agric. Sci. Sarthe, xxxix. 46 (1903); Cat. Pl. Yun-Nan, 90 (1916).

*Rhododendron fuchsiae-flora* Léveillé in Fedde, Rep. Spec. Nov. XII. 284 (1913); Cat. Pl. Yun-Nan, 91 (1916), "*fuchsii-flora*." — Tagg in Rhodod. Soc. Notes, III. 229 (1928), "*fuchsiae-florum*," pro synonym.

CHINA. Y u n n a n : environs de Yun-nan-sen, bois de la pagode de Kiong-tchou-se et de celle de Hé-long-tan, *E. Bodinier*, no. 115, Feb. 24 and March 2, 1897 "petit arbuste, fleurs pourpres" (syntypes of *Rh. Duclouxii*); Yun-nan-sen, c. dans la montagne près du College, *F. Ducloux*, no. 61, "petit arbuste à fleurs rose-pourpres, premières fleurs 29 janv. 1897" (syntype of *Rh. Duclouxii*); montagnes arides de Mo-tsou (fleuve Bleu), 800 m., *E. E. Maire*, May 1912 (holotype of *Rh. fuchsiae-flora*).

*Rhododendron fuchsiae-flora* was first identified with *Rh. spinuliferum* in Species of Rhododendron (p. 852). Also *Rh. Duclouxii* was referred as a synonym to that species by Hutchinson (op. cit. p. 606), but according to Handel-Mazzetti (in litt.) it represents a hybrid between *Rh. spiciferum* Franch. and *Rh. spinuliferum* Franch. which he states is not rare around Yunnanfu. Handel-Mazzetti saw a type specimen of *Rh. Duclouxii* in the Berlin Herbarium, which was recognized also by Diels as the hybrid indicated. It may be doubted, if all the syntypes cited above represent this hybrid, and therefore, for the present *Rh. Duclouxii* is kept as a synonym of *Rh. spinuliferum* Franch., until the material in Edinburgh has been revised.

### Sect. 3. RHODORASTRUM Maxim.

#### VIRGATUM Series

**Rhododendron racemosum** Franchet in Bull. Soc. Bot. France, xxxiii. 235 (1886). — Hooker f. in Bot. Mag. xxix. t. 7301 (1893). — Tagg in Rhodod. Soc. Notes, III. 228, 230 (1928). — Hutchinson in Spec. Rhodod. 829, 852, 853 (1930).

*Rhododendron motsouense* Léveillé in Fedde, Rep. Spec. Nov. XIII. 148 (1914) "motsouense"; Cat. Pl. Yun-Nan, 92 (1916).

*Rhododendron crenatum* Léveillé in Bull. Géog. Bot. xxv. 20 (1915); Cat. Pl. Yun-Nan, 89, fig. 22 (1916).

CHINA. Y u n n a n : montagnes aux environs de Mo-tsou (fleuve Bleu), 800 m., Ta-hai-tse, 3200 m., *E. E. Maire*, 1911-1912 (syntypes of *Rh. motsouense*); monts derrière Mo-tsou, 3000 m., *E. E. Maire*, April 1911 (holotype of *Rh. crenatum*).



*Rhododendron motsouense* and *Rh. crenatum* were first referred to *Rh. racemosum* by Tagg (l. c.).

DAURICUM Series

**Rhododendron mucronulatum** Turczaninow in Bull. Soc. Nat. Moscow, x. no. 7, p. 155 (1837). — Nakai, Pl. Sylv. Kor. VIII. 35, t. 10 (1919).

*Rhododendron dauricum* L. var. *mucronulatum* (Turcz.) Maximowicz in Mém. Acad. Sci. St. Pétersb. sér. 7, XVI. no. 9, p. 44 (Rhod. As. Or.) (1870). — Tagg in Rhodod. Soc. Notes, III. 231 (1928); in Spec. Rhodod. 853 (1930).

*Rhododendron Taquetii* Léveillé in Fedde, Rep. Spec. Nov. XII. 101 (1913).

KOREA. **Quelpaert**: Hallaisan, *E. Taquet*, no. 5788, June 1911 (holotype of *Rh. Taquetii*).

*Rhododendron Taquetii* was first referred to *Rh. mucronulatum* by Nakai (l. c.).

Subgen. II. **AZALEASTRUM** Planch.

Sect. 1. **EUAZALEASTRUM** Wils.

OVATUM Series

**Rhododendron Bachii** Léveillé in Fedde, Rep. Spec. Nov. XII. 102 (1913); Fl. Kouy-Tchéou, 152 (1914). — Tagg in Rhodod. Soc. Notes, III. 227 (1928). — Hutchinson in Spec. Rhodod. 561 (1930).

CHINA. **Kweichou**: Lou-mong-touan, RR., *J. Cavalerie*, no. 2982, May 1908 (holotype).

This is apparently a valid species and closely related to *Rh. ovatum* Maxim. and *Rh. leptothrium* Balf. f. & Forr.

Sect. 2. **CHIONASTRUM** Franch.

STAMINEUM Series

**Rhododendron stamineum** Franchet in Bull. Soc. Bot. France, XXXIII. 236 (1886). — Hutchinson in Bot. Mag. CXLI. t. 8601 (1915); in Spec. Rhodod. 623 (1930).

*Rhododendron Cavaleriei* var. *Chaffanjonii* Léveillé in Bull. Soc. Agric. Sci. Sarthe, XXXIX. 49 (1903); Fl. Kouy-Tchéou, 152 (1914).

*Rhododendron Chaffanjonii* Léveillé ex Hutchinson in Spec. Rhodod. 623 (1930), pro synonym. *Rh. staminei*.

CHINA. **Kweichou**: environs de Kouy-yang, mont du Collège, *J. Chaffanjon* in Hb. Bodinier, no. 2332, April 1898 (holotype of *Rh. Cavaleriei* var. *Chaffanjonii*).

*Rhododendron Cavaleriei* var. *Chaffanjonii* was first identified with *Rh. stamineum* by Hutchinson in 1930 (l. c.), but he cited it as *Rh. Chaffanjonii*.



**Rhododendron Esquirolii** Léveillé in Fedde, Rep. Spec. Nov. XII. 102 (1913). — Tagg in Rhodod. Soc. Notes, III. 228 (1928). — Hutchinson in Spec. Rhodod. 614 (1930).

CHINA. K w e i c h o u : hautes montagnes, *J. Cavalerie*, no. 2375, and *J. Esquirol*, no. 476, June 1905 (syntypes).

**Rhododendron Cavaleriei** Léveillé in Bull. Soc. Agric. Sci. Sarthe, XXXIX. 48 (1903); Fl. Kouy-Tchéou, 152 (1914). — Tagg in Rhodod. Soc. Notes, III. 228 (1928). — Hutchinson in Spec. Rhodod. 612 (1930).

?*Reevesia Esquirolii* Léveillé in Fedde, Rep. Spec. Nov. XIII. 175 (1914); Fl. Kouy-Tchéou, 405 (1915).

CHINA. K w e i c h o u : sous-prefecture de Tou-chan, *J. Cavalerie*, no. 2633, May 1899 (holotype of *Rh. Cavaleriei*); bois de Bagnin, *J. Esquirol*, no. 2604, Feb. 29, 1912 (holotype of *Reevesia Esquirolii*).

Dr. J. M. Cowan states in a letter of April 24, 1934, that Esquirol no. 2604 is probably identical with *Rh. Cavaleriei*, but the material is poor.

*Reevesia Esquirolii* is enumerated by J. Anthony in his paper, "The genus *Reevesia* Lindl." (in Notes Bot. Gard. Edinb. xv. 121-129, 1926) as an excluded species representing a species of *Rhododendron* of the Stamineum section.

Subgen. III. **ANTHODENDRON** Endl.

Sect. TSUTSUTSI

(AZALEA Series: OBTUSUM Subseries)

**Rhododendron chrysocalyx** Léveillé & Vaniot in Fedde, Rep. Spec. Nov. II. 113 (1906); Fl. Kouy-Tchéou, 152 (1914). — Wilson in Jour. Arnold Arb. VI. 200 (1925). — Tagg in Rhodod. Soc. Notes, III. 228 (1928).

*Rhododendron spinigerum* Léveillé in Bull. Géog. Bot. XXIV. 251 (1914).

CHINA. K w e i c h o u : route de Mou-you-se à Tcheu-lin, *J. Cavalerie*, no. 2059, June 1904 (syntype of *Rh. chrysocalyx*); Pin-fa, bord des ruisseaux, *J. Cavalerie*, no. 1796, April 25, 1904 (syntype of *Rh. chrysocalyx*); îlet à Pia-ouay-ho, 700 m., *J. Esquirol*, no. 3560, May 2, 1912 (holotype of *Rh. spinigerum*).

*Rhododendron spinigerum* was referred to *Rh. chrysocalyx* as a synonym by Léveillé in his Flore du Kouy-Tchéou.

**Rhododendron fuchsiifolium** Léveillé in Fedde, Rep. Spec. Nov. XIII. 148 (1914); Fl. Kouy-Tchéou, 152 (1914); "*fuchsiifolia*". — Tagg in Rhodod. Soc. Notes, III. 229 (1928); in Spec. Rhodod. 852 (1930).



CHINA. K w e i c h o u : Pin-fa, *J. Cavalerie*, no. 3221, May 20, 1907 "fl. blanc-rose, piquetées de pourpre" (holotype; photo. in A. A.).

This species is closely related to *Rh. microphytum* Franch., but differs in the corolla having outside 5 rows of stipitate glands extending from the base to about the middle of the lobes, while in *Rh. microphyton* the corolla is perfectly glabrous outside. The leaves are elliptic-ovate, acute or acuminate, rather densely strigose above, below only with flattened strigose hairs on the midrib, otherwise glabrous; in *Rh. microphyton* there are scattered red-brown hairs on the whole underside, rarely it is nearly glabrous, and the shape and size of the leaves is exceedingly variable, sometimes even broadest above the middle and obtusish.—A. R.

**Rhododendron umbelliferum** Léveillé in Fedde, Rep. Spec. Nov. XII. 102 (1913); Fl. Kouy-Tchéou, 153 (1914); Cat. Pl. Yun-Nan, 94 (1916). — Tagg in Rhodod. Soc. Notes, III. 231 (1928); in Spec. Rhodod. 853 (1930).

CHINA. K w e i c h o u : Pin-fa, *J. Cavalerie*, no. 10, Apr. 2, 1902 (holotype, ex Léveillé; isotype in Hb. Léveillé and photo. of isotype in A. A.).

Of this species I have not seen the original specimen. The specimen from the Herbarium Léveillé before me is apparently a duplicate of Cavalerie no. 10 received from Kew with a copied label. This specimen consists of two branches; the larger one is *Rh. Mariesii* Hemsl., while the smaller branch seems to agree with Léveillé's rather poor description of *Rh. umbelliferum*. I am not able to refer this specimen to any described species; it seems nearest to *Rh. microphyton* Franch., but the corolla-tube is much shorter than the oblong lobes and in the two flowers examined I counted 7 stamens shorter than the lobes.—A. R.

**Rhododendron yedoense** Maxim. var. **poukhanense** (Lévl.) Nakai in Tokyo Bot. Mag. xxxiv. (274) (1920). — Rehder in Spec. Rhodod. 109 (1930).

*Rhododendron poukhanense* Léveillé in Fedde, Rep. Spec. Nov. v. 100 (1908). — Nakai, Fl. Sylv. Kor. VIII. 47, t. 18 (1919). — Tagg in Rhodod. Soc. Notes, III. 229 (1928).

*Rhododendron hallaisanense* Léveillé in Fedde, Rep. Spec. Nov. XII. 101 (1913).

KOREA. K e i k i P r o v . : in arce Pouk-han, *U. Faurie*, June 3, 1901 (holotype of *Rh. poukhanense*). Q u e l p a e r t : Hallaisan, 1800 m., *E. Taquet*, no. 305, Oct. 1907 (holotype of *Rh. hallaisanense*).

*Rhododendron hallaisanense* was first identified with *Rh. poukhanense* by Nakai in 1919 (l. c.).



**Rhododendron mucronatum** (Bl.) G. Don, Gen. Syst. III. 846 (1834). — Tagg in Spec. Rhodod. 851 (1930).

*Rhododendron Argyi* Léveillé in Fedde, Rep. Spec. Nov. XII. 102 (1913); in Mem. Acad. Ci. Art. Barcelona, ser. 3, XII. 550 (Cat. Pl. Kiang-Sou, 10) (1916).

CHINA. K i a n g s u : Long-se, Long-chien, Vou-sée, *Ch. d'Argy*, Apr. 20 [1861-74] (holotype of *Rh. Argyi*).

*Rhododendron Argyi* was first identified with *Rh. mucronatum* in 1920 by E. H. Wilson in Léveillé's herbarium, but in 1925 (Jour. Arnold Arb. VI. 174) he published it as a synonym of *Rh. dauricum* var. *mucronulatum*; this mistake was apparently brought about by the similarity in the name and the misreading of the notes he made in Edinburgh.

#### SPECIES DUBIAE

**Rhododendron Feddei** Léveillé in Fedde, Rep. Spec. Nov. XII. 102 (1913); Fl. Kouy-Tchéou, 152 (1914). — Tagg in Rhodod. Soc. Notes, III. 229 (1928); Hutchinson in Spec. Rhodod. 611 (1930).

CHINA. K w e i c h o u : Pin-fa, précipices, *J. Cavalerie*, no. 1074, June 18, 1903, "arbrisseau 3-4 m." (holotype).

*Rhododendron Feddei* is probably equivalent to one of the described species of the Stamineum Series, but the material is too imperfect for determination and the name should be ignored.

**Rhododendron Maximowiczianum** Léveillé in Bull. Soc. Agric. Sci. Sarthe, XXXIX. 47 (1903) Cat. Pl. Yun-Nan, 92 (1916). — Tagg in Spec. Rhodod. 852 (1930).

CHINA. Y u n n a n : environs de Yunnan-sen, acheté à marché de la ville, apporté des montagnes voisines, *E. Bodinier*, March 20, 1897 "arbuste" (holotype).

This is said by the author to be near *Rh. siderophyllum* Franch., but the fragmentary specimens are those of a member of the Irroratum Series. The indumentum described by the author is not present in the specimens presumed to be the originals. The species should most fittingly be ignored.

**Enkianthus Dunnii** Léveillé in Fedde, Rep. Spec. Nov. IX. 448 (1911); Fl. Kouy-Tchéou, 148 (1914). — Hutchinson in Notes Bot. Gard. Edinb. XI. 167 (1919).

*Enkianthus Cavaleriei* Léveillé in Fedde, Rep. Spec. Nov. IX. 448 (1911). — **Synon. nov.**

?*Enkianthus xanthoxantha* Léveillé in Fedde, Rep. Spec. Nov. IX. 448 (1911) "xantoxantha"; Fl. Kouy-Tchéou, 148 (1914). — **Synon. nov.**



CHINA. K w e i c h o u : Pin-fa, *J. Cavalerie*, no. 2300, Apr. 13, 1905 (holotype of *E. Dunnii*; photo. in A. A.); Pin-fa, sommet rocheux des montagnes, *J. Cavalerie*, no. 7, Apr. 2, 1902 (holotype of *E. Cavaleriei*; photo. in A. A.); Pin-fa, montagnes, *J. Cavalerie*, no. 930, "fleurs jaunes" (holotype of *E. xanthoxantha*; photo. in A. A.).

*Enkianthus Dunnii* and *E. Cavaleriei* are doubtless identical. Of *E. xanthoxantha* the collector gives the color of the flowers as yellow and if this is true it may be a distinct color-form or another species; the leaves are still undeveloped and therefore cannot be compared with those of the other specimens. *Enkianthus Dunnii* is closely related to *E. quinqueflorus* Lour. as already stated by Hutchinson (l. c.) but differs in the thinner chartaceous, not reticulate leaves, slenderer petioles, smaller flowers and lanceolate sepals. From *E. serrulatus* (Wils.) Schneid. it is easily distinguished by the not reticulate leaves with an entire cartilagineous margin, or above the middle indistinctly and remotely denticulate, as they are often in *E. quinqueflorus*. *Enkianthus Cavaleriei* is referred by L veill  in his Flore du Kouy-Tch ou as a synonym to *E. cerasiflora*, but this is apparently a mistake, for it is quite different from that species.

***Enkianthus chinensis*** Franchet in Jour. de Bot. ix. 371 (1895). — L veill , Cat. Pl. Yun-Nan, 86 (1916).

*Zenobia cerasiflora* L veill  in Bull. Acad. Intern. G og. Bot. xii. 253 (1903).

*Enkianthus cerasiflora* L veill  in Fedde, Rep. Spec. Nov. ix. 448 (1911); Fl. Kouy-Tch ou, 148 (1914). — Craib in Notes Bot. Gard. Edinb. xi. 167 (1919). — **Synon. nov.**

*Bodinierella Cavaleriei* L veill  in Fedde, Rep. Spec. Nov. xii. 101 (1913); Fl. Kouy-Tch ou, 147 (1914).

*Enkianthus Leveilleanus* Craib in Notes Bot. Gard. Edinb. xi. 168 (1919). — **Synon. nov.**

CHINA. K w e i c h o u : Tang-kio-chan, *E. Bodinier*, May 20, 1900 (holotype of *Zenobia cerasiflora*; photo. and merotype in A. A.); Pin-fa, Jouin-ou-chan, hautes montagnes, *J. Cavalerie*, no. 61, July 15, 1902 (syntype of *Bodinierella Cavaleriei*; photo. in A. A.), no. 1318, June 3, 1902, "fleurs ven es, lav es de rose" (syntype of *Bodinierella Cavaleriei*; photo. in A. A.).

Craib refers *E. cerasiflorus* to the Campanulatus Series on account of its glabrous style, but in *E. chinensis* the style may vary from more or less pilose to glabrous; I find the style glabrous in Bock & Rosthorn no. 2080, Wilson nos. 3547 and 3549 and nearly glabrous in Wilson no. 1002; in the type of *Bodinierella Cavaleriei* the style is very sparingly pilose. I therefore do not believe that the glabrousness of the style can



be relied upon to distinguish *E. campanulatus* (Miq.) Nichols. *Bodinierella Cavaleriei* does not seem to be specifically distinct from *E. chinensis*, though the leaves and flowers are generally smaller. Craib in transferring it to *Enkianthus* under a new specific epithet does not discuss its relationship.

**Cassiope selaginoides** Hooker f. & Thompson in Hooker's Kew Jour. Bot. VII. 126, t. 4 (1885). — Lévillé, Cat. Pl. Yun-Nan, 86 (1915).

*Cassiope Mairei* Lévillé in Fedde, Rep. Spec. Nov. XIII. 342 (1914); Cat. Pl. Yun-Nan, 86 (1915). — **Synon. nov.**

CHINA. Y u n n a n : sur rochers du Io-chan, 3200 m., *E. E. Maire*, June 1913 (holotype of *C. Mairei*; photo. and merotype in A. A.).

**Leucothoë** spec.

*Picris Cavaleriei* Lévillé & Vaniot in Bull. Soc. Bot. France, LI. 292 (1904); LIII. 205 (1906); Fl. Kouy-Tchéou, 149 (1914).

CHINA. K w e i c h o u : Pin-fa, chutes d'eau, précipices, *J. Cavalerie*, no. 780, Oct. 15, 1902 (holotype of *Picris Cavaleriei*; photo. in A. A.).

This is apparently closely related to *L. Griffithiana* (Hook. f.) Clarke which differs according to the description in the subobtusely calyx-teeth, ovate and abruptly short-acuminate or acute in Cavalerie's specimen which is in young fruit. I have seen no material of *L. Griffithiana*; the difference in the shape of the calyx-teeth may not be as great as it seems and Cavalerie's specimen may be referable to *L. Griffithiana*.

**Picris formosa** (Wall.) D. Don in Edinb. N. Philos. Jour. XVII. 159 (1834). — Lévillé, Cat. Pl. Yun-Nan, 87 (1916).

*Picris Bodinieri* Lévillé in Bull. Acad. Intern. Géog. Bot. XII. 253 (1903); Bull. Soc. Bot. France, LIII. 205 (1906); Fl. Kouy-Tchéou, 149 (1914); Cat. Pl. Yun-Nan, 87 (1916); Cat. Ill. Pl. Seu-Tchouen, pl. 24 (1918), MS. — **Synon. nov.**

CHINA. K w e i c h o u : Pin-fa, *J. Cavalerie*, no. 9, April 2, 1902 (cited under *P. Bodinieri* in Fl. Kouy-Tchéou, l. c., together with no. 64; photo. in A. A.). Y u n n a n : environs de Yunnan-sen, c. dans la montagne, *E. Bodinier*, no. 60, Jan. 29, 1897 "arbuste, fl. blanches" (syntype of *P. Bodinieri*; ex Lévillé); *Fr. Ducloux*, March 9, 1893 (syntype of *P. Bodinieri*; ex Lévillé).

*Picris Bodinieri* is at present represented in the Herbarium only by Cavalerie no. 9, while the two syntypes from Yunnan cannot be located. The species seems common in Yunnan and from Kweichou I have seen specimens collected by Y. Tsiang (no. 9369) and by Steward, Chiao and Cheo (no. 759).



**Xolisma ovalifolia** (Wall.) Rehder in Jour. Arnold Arb. v. 52 (1924).

*Pieris ovalifolia* (Wall.) D. Don in Edinb. Phil. Jour. xvii. 159 (1834). — Léveillé, Fl. Kouy-Tchéou, 150 (1914); Cat. Pl. Yun-Nan, 87 (1916).

*Pieris Ulbrichii* Léveillé in Bull. Soc. Bot. France, LIII. 205 (1906); Fl. Kouy-Tchéou, 150 (1914) "*Ulbrichiana*." — **Synon. nov.**

*Pieris Mairei* Léveillé in Bull. Géog. Bot. xxv. 21 (1915); Cat. Pl. Yun-Nan, 87 (1916). — **Synon. nov.**

*Vaccinium Mairei* Léveillé, l. c. (1915); l. c. (1916).

CHINA. K w e i c h o u : without precise locality, *J. Esquirol*, no. 42, May 15, 1904 "arbrisseau, fleurs blanches" (holotype of *P. Ulbrichii*; photo. in A. A.). Y u n n a n : collines calcaires de Tcha-ho, 2600 m., *E. E. Maire*, July 1912 "arbuste peu rameux, haut 1.30 m., fleurs blanches" (holotype of *Pieris Mairei*; photo. in A. A.); brousse des montagnes à Kiao-me-ti, *E. E. Maire*, May 1912 (holotype of *Vaccinium Mairei*; merotype in A. A.).

*Pieris Ulbrichii* and *P. Mairei* had been referred already by J. Hutchinson to *P. ovalifolia* according to notes on the type sheets.

**Xolisma ovalifolia** var. **lanceolata** (Wall.) Rehder in Jour. Arnold Arb. v. 52 (1924).

*Pieris ovalifolia* var. *lanceolata* (Wall.) Clarke in Hook. f., Fl. Brit. Ind. III. 461 (1882). — Léveillé, Cat. Pl. Yun-Nan, 87 (1916).

*Pieris kouyangensis* Léveillé in Bull. Acad. Intern. Géog. Bot. XII. 253 (1903); in Bull. Soc. Bot. France, LIII. 204 (1906); Fl. Kouy-Tchéou, 149 (1914); Cat. Pl. Yun-Nan, 87 (1916). — **Synon. nov.**

*Pieris Mairei* var. *parvifolia* Léveillé in Bull. Géog. Bot. xxv. 21 (1915); Cat. Pl. Yun-Nan, 87 (1916).

CHINA. K w e i c h o u : environs de Kouy-yang, c. sur les montagnes du Collège, *E. Bodinier*, no. 2264, May 18, 1898 "petit arbuste, 0.50 m., fleurs blanches" (holotype of *P. kouyangensis*; photo. in A. A.); collines arides de Tché-hai, 2500 m., *E. E. Maire*, June 1912 (holotype of *P. Mairei* var. *parvifolia*; photo. in A. A.).

*Pieris kouyangensis* and *P. Mairei* var. *parvifolia* have been referred to *P. ovalifolia* D. Don by J. Hutchinson. *Pieris Mairei* var. *parvifolia* represents a small-leaved form of var. *lanceolata*.

**Xolisma villosa** (Wall.) Rehd. var. **pubescens** (Franch.) Rehder in Jour. Arnold Arb. v. 53 (1924).

*Pieris Henryi* Léveillé in Bull. Soc. Bot. France, LIII. 204 (1906); Cat. Pl. Yun-Nan, 87 (1916). — Rehder, l. c. 54 (1924). — **Synon. nov.**

CHINA. Y u n n a n : Mengtze, mountains 6500 ft., *A. Henry*, no.



9681 "low shrub, 1 ft. high, flowers white" (holotype of *P. Henryi*; photo. in A. A.).

*Pieris Henryi* was referred by J. Hutchinson to *P. ovalifolia* according to a note on the type sheet. Judging only from Lévillé's description it was placed by me (l. c. 53, 54) tentatively under *X. villosa*, but the pubescent ovary shows that it belongs to var. *pubescens*.

**Gaultheria yunnanensis** (Franch.), comb. nov.

*Vaccinium yunnanense* Franchet in Jour. de Bot. IX. 368 (1895).

*Gaultheria laxiflora* Diels in Bot. Jahrb. XXIX. 515 (1900). —

**Synon. nov.**

*Pieris Fortunati* Lévillé in Bull. Soc. Bot. France, LIV. 369 (1907); Fl. Kouy-Tchéou, 149 (1914); Cat. Pl. Yun-Nan, 87 (1916). —

**Synon. nov.**

*Pieris vaccinium* Lévillé in Fedde, Rep. Spec. Nov. IX. 448 (1911). —

**Synon. nov.**

*Vaccinium yunnanense* Franch. var. *Franchetiana* Lévillé, Fl. Kouy-Tchéou, 155 (1914). — **Synon. nov.**

*Embelia Vaniotii* Lévillé, Fl. Kouy-Tchéou, 285 (1915). — **Synon. nov.**

CHINA. K w e i c h o u : without precise locality, no. 666 (holotype of *Pieris Fortunati*; photo. in A. A.); montagnes de Lou-tsongkoan, c. dans les pentes boisées, E. Bodinier, no. 1659, June 12, 1897 "petit arbuste ou sous-arbrisseau, fl. blanches" (syntype of *Pieris vaccinium* and *Vaccinium yunnanense* var. *Franchetiana*; photo. in A. A.); environs de Gan-pin dans la montagne, L. Martin, July 28, 1898 (syntype of *Pieris vaccinium* and *V. yunnanense* var. *Franchetiana*; photo. in A. A.); moulins de Tong-tchéou, J. Esquirol, no. 3251, June 22, 1902 (holotype of *Embelia Vanioti*; photo. in A. A.). Y u n n a n : dans les bois à Tchen-fong-chan, J. M. Delavay, no. 3069, July 1894 "arbrisseau, fleurs blanches" (holotype of *V. yunnanense* in hb. Paris; photo. in A. A.).

It is evident from Franchet's description of his *Vaccinium yunnanense* that the plant can not belong to *Vaccinium*, for he describes the fruit (immature) as "capsula semi-inclusa globoso-depressa, tomentella."

*Pieris Vaccinium* was not mentioned as a synonym when Lévillé enumerated the two specimens on which this species was based under the new name *Vaccinium yunnanense* var. *Franchetiana* without description.

**Vaccinium bracteatum** Thunberg, Fl. Jap. 156 (1784). — Rehder & Wilson in Sargent, Pl. Wilson. I. 558 (1913). — Lévillé, Fl. Kouy-Tchéou, 154 (1914). — Nakai, Fl. Sylv. Kor. VIII. 58 (1919).

*Pieris divaricata* in Bull. Acad. Intern. Géog. Bot. XII. 252 (1903); in Bull. Soc. Bot. France, LIII. 206 (1906). — **Synon. nov.**



*Pieris coreana* Léveillé in Fedde, Rep. Spec. Nov. v. 281 (1908). —

**Synon. nov.**

*Pieris Fauriei* Léveillé, l. c. (1908). — **Synon. nov.**

*Vaccinium Taquetii* Léveillé in Fedde, Rep. Spec. Nov. XII. 182 (1913).

KOREA. Q u e l p a e r t : secus torrentes, *U. Faurie*, no. 1866, July 1907 (holotype of *Pieris coreana*; photo. and isotype in A. A.); in petrosis silvarum, *U. Faurie*, no. 1865, June 1907 (holotype of *P. Fauriei*; photo. and isotype in A. A.); in silvis Hioton, *E. Taquet*, no. 1084, Oct. 1908 (holotype of *V. Taquetii*; photo. and isotype in A. A.).

CHINA. K w e i c h o u : environs de Kouy-yang, bois de Kien-lin-chan, *E. Bodinier*, no. 2399, July 7, 1898, "grand arbuste, quelquefois petit arbre, branches très cassantes, fl. blanches, parfois légèrement rosées" (holotype of *Pieris divaricata*; photo. in A. A.).

*Pieris divaricata*, *P. coreana* and *P. Fauriei* have been already referred to *V. bracteatum* by W. E. Evans according to notes on the type sheets. *Vaccinium Taquetii* is enumerated as a synonym of *V. bracteatum* by Nakai (l. c.).

**Vaccinium repens** (Lévl.), comb. nov.

*Pieris repens* Léveillé in Bull. Acad. Intern. Géog. Bot. XII. 252 (1903); in Bull. Soc. Bot. France, LIII. 205 (1906); Fl. Kouy-Tchéou, 150 (1914); Cat. Pl. Yun-Nan, 87 (1916).

*Vaccinium mekongense* W. W. Smith in Notes Bot. Gard. Edinb. IX. 133 (1916). — **Synon. nov.**

CHINA. K w e i c h o u : montagnes entre Hin-y-fou et le fleuve Hoa-kiang, partie haute de la montagne, *E. Bodinier*, no. 1560, Apr. 20, 1897 "très petit arbuste, fleurs d'un blanc pourpré" (holotype of *P. repens*; photo. in A. A.). Y u n n a n : open situations on the Yungchang—Mekong divide, Lat. 25° 15' n., alt. 7-8000 ft., *G. Forrest*, no. 9887, May 1913, shrub of 2-5 ft., flowers creamy white, striped rose (holotype of *V. mekongense*; isotype in A. A.).

I am unable to find any characters to separate the two specimens cited above, even in the habit there is not much difference. The term "repens" applied by Léveillé to his species is misleading; the specimen clearly represents an upright shrub, about 20 cm. tall, without any sign of being creeping except the curved root-stock.

**Vaccinium albidens** Léveillé & Vaniot in Fedde, Rep. Spec. Nov. IX. 447 (1911); Fl. Kouy-Tchéou, 154 (1914).

CHINA. K w e i c h o u : without precise locality, *J. Esquirol*, no. 379, June 1902 (holotype; photo. in A. A.).

The specimen is too incomplete to allow exact identification; the



small apparently immature fruits are short-stalked and borne in short rather dense racemes. Judging from the foliage it seems related to *V. Griffithianum* Wight, though the leaves are smaller than usually in that species.

**Vaccinium mandarinorum** Diels in Bot. Jahrb. xxix. 516 (1901).—Metcalf in Jour. Arnold Arb. xii. 272 (1931).

*Vaccinium Donianum* Maximowicz in Mém. Biol. i. 608 (1872); in Bull. Acad. Sci. St. Pétersb. xviii. 43 (1873), pro parte.

*Pieris longicornu* Léveillé & Vaniot in Bull. Soc. Bot. France, LI. 291 (1904); LIII. 206 (1906). — Léveillé, Fl. Kouy-Tchéou, 149 (1914).

*Pieris Esquirolii* Léveillé & Vaniot in Bull. Soc. Bot. France, LIII. 206 (1906). — Léveillé, Fl. Kouy-Tchéou, 149 (1914). —

**Synon. nov.**

*Pieris Esquirolii* var. *discolor* Léveillé & Vaniot, l. c. (1906).

CHINA. K w e i c h o u : Pin-fa, montagnes, *J. Cavalerie*, no. 1009, May 14, 1903, "1 à 2 m., fleurs blanches, étamines jaunes" (holotype of *Pieris longicornu*; photo. in A. A.); route de So-jao, face à Pa-pen, *J. Esquirol*, no. 12, April 3, 1904 (holotype of *P. Esquirolii*; photo. in A. A.); same locality, coteaux schisteux, *J. Esquirol*, nos. 10 and 13, April 3 and 4, 1904, "arbrisseau de 2 à 3 m., fl. blanc-rouge, sépales rougeâtres" (syntypes of *Pieris Esquirolii* var. *discolor*; photo. in A. A.).

*Vaccinium mandarinorum* is here accepted as a distinct species following Metcalf (l. c.), and this is now also the opinion of Dr. Handel-Mazzetti (in litt.) who referred, in Akad. Anzeig. Wiss. Wien. 1925, p. 146 (Pl. Nov. Sin. Forts. 35, p. 43), *Pieris longicornu* to *Vaccinium Donnianum*, while Anthony (Not. Bot. Gard. Edinb. xviii. 16. 1933) is inclined to consider it specifically distinct. *Pieris Esquirolii* var. *discolor* represents a form with the leaves pubescent beneath; in one of the specimens, no. 13, the whole under-side is sparingly villous, more densely so in the veins, while in no. 10 only the midrib below the middle and the petiole is villous, a character also occasionally observed in otherwise typical *V. mandarinorum*.

**Vaccinium Duclouxii** (Lévl.) Handel-Mazzetti in Akad. Anz. Wiss. Wien, 1925, p. 146 (Pl. Nov. Sin. Forts. 35, p. 4) (1925).

*Pieris Duclouxii* Léveillé in Bull. Acad. Intern. Géog. Bot. xii. 253 (1903); in Bull. Soc. Bot. France, LIII. 206 (1906); Cat. Pl. Yun-Nan, 87 (1916).

*Vaccinium Forrestii* Diels in Not. Bot. Gard. Edinb. v. 294 (1912).

CHINA. Y u n n a n : environs de Yun-nan-sen, bois de la pagode de Kiong-chou-se, *E. Bodinier*, no. 104, March 2, 1897, "grand arbuste de 2-3 m." (holotype of *Pieris Duclouxii*; photo. in A. A.); on the



same label the following additional localities are cited: "item à My-tsaio, 6 mars 97, *Fr. Ducloux*; item mont Ma-kay, 4 April 97," but there is only one specimen on the sheet.

Anthony (Notes Bot. Gard. Edinb. xviii. 16. 1933) refers *V. Duclouxii* as a synonym to *V. Donnianum* Wight, but it is easily distinguished from typical *V. Donnianum* by its rather short racemes and very short pedicels and the non-ciliate calyx, or ciliate only at the apex.

**Vaccinium pubicalyx** Franchet in Jour. de Bot. ix. 369 (1895). — Léveillé, Cat. Pl. Yun-Nan, 94 (1916).

*Myrica Mairei* Léveillé in Bull. Géog. Bot. xxv. 40 (1915); Cat. Pl. Yun-Nan, 177 (1915). — **Synon. nov.**

CHINA. Y u n n a n : brousse des montagnes à Kiao-me-ti, 3100 m., *E. E. Maire*, July 1912 "petit arbre peu rameux, fleurs jaunes" (holotype of *Myrica Mairei*; merotype in A. A.).

Maire gives the color of the flowers as yellow; in his specimen the flowers are still in bud and may be yellowish in that state, but the open flowers are white or pinkish white according to Handel-Mazzetti (no. 10129) and Rock (no. 5075).

**Vaccinium pubicalyx** var. **leucocalyx** (Lévl.) comb. nov.

*Pieris Esquirolii* Lévl. var. *leucocalyx* Léveillé in Bull. Soc. Bot. France, LIII. 206 (1906).

CHINA. K w e i c h o u : route de So-Jao, face à Pa-pen, *J. Esquirol*, no. 11, 1904 "presque entièrement rouge, calice coloré" (holotype of *Pieris Esquirolii* var. *leucocalyx*; photo. in A. A.).

*Pieris Esquirolii* var. *leucocalyx* is perhaps best referred to *Vaccinium pubicalyx* Franch., with which it agrees in the pubescent calyx and the dense rather short racemes, but it differs in the leaves being only short-acuminate or acute and loosely villous on the under surface, more densely so on the midrib, and in the longer 2-4 cm. long racemes. In Flore du Kouy-Tchéou, Léveillé cites Esquirol no. 11 under *Pieris Esquirolii* without mentioning the varietal name.

**Vaccinium malaccense** Wight in Calcutta Jour. Nat. Hist. viii. 172 (1847).

*Pieris ovalifolia* var. *denticulata* Léveillé in Bull. Soc. Bot. France, LI. 291 (1904).

*Pieris lucida* Léveillé, op. cit. LIII. 207 (1906); Fl. Kouy-Tchéou, 150 (1914). — **Synon. nov.**

CHINA. K w e i c h o u : Tsin-gai (Kai-po), *J. Cavalerie* no. 1235, Aug. 5, 1903, "h. 3 à 4 m." (holotype of *Pieris ovalifolia* var. *denticulata* and *P. lucida*; photo. in A. A.).

*Pieris lucida* has been identified by Hutchinson as *Vaccinium malaccense*.



**Vaccinium Dunalianum** Wight var. **urophyllum** Rehder & Wilson in Sargent, Pl. Wilson. I. 560 (1913). — Lévillé, Cat. Pl. Yun-Nan, 94 (1916).

*Pieris Martini* Lévillé in Bull. Acad. Intern. Bot. Géog. XII. 252 (1903); in Bull. Soc. Bot. France, LIII. 204 (1906); Fl. Kouy-Tchéou, 150 (1914). — **Synon. nov.**

CHINA. K w e i c h o u : environs de Gan-pin, mont de la ville, L. Martin in hb. Bodinier, no. 2308, June 5, 1898 "arbuste à fleurs blanches teintées de rose" (holotype of *Pieris Martini*; photo. in A. A.).

On account of the short-villous branchlets and petioles *Pieris Martini* is referable to var. *urophyllum* of *V. Dunalianum*, but the midrib and veins of the under side of the leaves are glabrous and thus the specimen represents a transition to the typical form. According to a note on the type sheet it was referred to *V. urceolatum* Hemsl., but that species is easily distinguished even without flowers by its short-petioled almost sessile leaves rounded at the base.

**Vaccinium foetidissimum** Lévillé & Vaniot in Fedde, Rep. Spec. Nov. IX. 447 (1911); Fl. Kouy-Tchéou, 154 (1914).

*Anisophyllea Cavaleriei* Lévillé, Fl. Kouy-Tchéou, 344 (1915). — **Synon. nov.**

CHINA. K w e i c h o u : Niang-ouang, rocailles près ruisseau du Chang, rare, J. Cavalerie, no. 343, Oct. 15, 1907 "fruit violet-cendré, très puant" (holotype of *V. foetidissimum*; merotype in A. A.); Pin-fa, J. Cavalerie, no. 343, Aug. 31, 1902 (holotype of *Anisophyllea Cavaleriei*; photo. in A. A.).

This species is apparently closely related to *V. Dunalianum* Wight, but readily distinguished by narrow oblong-lanceolate or oblanceolate leaves 5-7 cm. long and 10-17 mm. wide, gradually narrowed into a very short petiole and acute, not acuminate, at the apex. The leaves strikingly resemble in shape and arrangement those of *V. angustilimum* Merr. from the Philippine Islands, particularly those of Manila Bureau of Science no. 26603, except that the veins are more prominent beneath in the latter.

**Vaccinium fragile** Franchet in Jour. de Bot. IX. 366 (1895). — Lévillé, Cat. Pl. Yun-Nan, 94 (1916).

*Pieris Gagnepainiana* Lévillé in Bull. Acad. Intern. Bot. Géog. XII. 251 (1903); in Bull. Soc. Bot. France, LIII. 205 (1906); Cat. Pl. Yun-Nan, 87 (1916). — **Synon. nov.**

CHINA. Y u n n a n : environs de Yun-nan-sen, c. au pied des rochers, bord des sentiers de la montagne, E. Bodinier, Dec. 3, 1896 "fleurs blanches à nervures pourpres" (holotype of *Pieris Gagnepainiana*; photo. in A. A.).



*Pieris Gagnepainiana* has been already identified with *V. fragile* by W. E. Evans according to a note on the type sheet. The specimen cited above represents the typical form named  $\alpha$ . *crinita* by Franchet (l. c. 367).

**Vaccinium triflorum**, nom. nov.

*Pieris buxifolia* Léveillé & Vaniot in Bull. Soc. Bot. France, LIII. 203 (1906).

*Vaccinium buxifolium* Léveillé in Fedde, Rep. Spec. Nov. XII. 101 (1913); Fl. Kouy-Tchéou, 154 (1914). — Non Hooker f.

Frutex humilis, prostratus, ad 20 cm. longus, ramosus; ramuli hornotini villosopilosi, tarde glabrescentes, vetustiores pallide brunneocinerei. Folia congesta, coriacea, per plures annos persistentia, ovalia vel elliptica, rarius elliptico-obovata vel elliptico-oblonga, 1.4-2 cm. longa et 7-10 mm. lata, obtusa et leviter emarginata, basi late vel interdum angustius cuneata vel rotundata, margine integro cartilagineo recurva, supra convexa, bullato-rugosa, costa media impressa, initio sparsissime densius ad costam et basin versus pilosa, subtus costa media elevata, venis obsoletis, fuscescentia, initio ad costam sparse pilosa, demum glabra; petioli 1-2 mm. longi, initio villosopilosi, demum fere glabri vel glabri. Inflorescentiae axillares in ramis biennibus racemos pedunculatos abbreviatos 2-3-floros formantes; axis pedunculo incluso 2-5 mm. longa, breviter pilosula; pedicelli 3-6 mm. longi, graciles, pilosi, bracteis ovatis obtusiusculis circiter 1 mm. longis ciliatis suffulti; sepala ovata, acuminata, 1.5 mm. longa ut ovarium satis dense pilosa; corolla campanulata, 7-8 mm. longa, extus intusque glabra, alba vel flavo-alba, roseostriata, ore vix vel non constricta, lobis late triangulari-ovatis, 2 mm. longis apice recurvis et dorso sparse pilosulis; stamina corollam subaequantia, filamentis villosis curvatis, antheris glabris tubulis apice alte fissis anthera longioribus inclusis 6 mm. longis, dorso appendiculis sursum curvatis circiter 1.5 mm. longis praeditis; stylus glaber, stamina paullo superans. Fructus non visus, ex collectore roseus, edulis.

CHINA. K w e i c h o u : Mo-chie, Tchang-t'sai, *J. Esquirol*, no. 33, May 1904, "très pauciflore; feuilles de buis ridées en dessus, rougeâtres dessous, entières au bords, rameaux et petioles velues, corolla rouge" (holotype of *Pieris buxifolia*; photo. in A. A.); Tiej-sey-kiao, 900 m., *J. Esquirol*, no. 2095, May 1910, "fl. blanche panachée de rose" (syntype of *V. buxifolium*; photo. in A. A.); Gan-chouen, rochers, AR., *J. Cavalerie*, no. 3799, May-Sept. 1910, "fl. blanc-jaune, fruit rose mangeable" (syntype of *V. buxifolium*; photo. in A. A.).

This species is similar in general appearance to *V. Delavayi* Franch., *V. dendrocharis* Hand.-Mazz., *V. conchophyllum* Rehd. and *V. moupi-*



*nense* Franch., but differs from all of them in the axillary 2-3-flowered inflorescence, the pubescent calyx and the open-campanulate corolla. Since Lévillé's description is very brief and insufficient, I have given above a full description based on the three specimens cited which are remarkably uniform, except that the leaves of no. 2075 are more cuneate at the base resembling those of *V. Delavayi* Franch., while the leaves of no. 3799 resemble those of *V. conchophyllum* Rehd. which may be after all only a form of *V. Delavayi*.

**Vaccinium japonicum** Miquel in Ann. Mus. Bot. Lugd.-Bat. I. 28 (1863); Prol. Fl. Jap. 92 (1866).

*Vaccinium Fauriei* Lévillé in Fedde, Rep. Spec. Nov. XII. 182 (1913). — **Synon. nov.**

KOREA. K o g e n P r o v . : in monte des diamantes, *U. Faurie*, no. 663, June 22, 1906 (holotype of *V. Fauriei*; photo. in A. A.).

**Vaccinium japonicum** var. **sinicum** (Nakai) Rehder in Jour. Arnold Arb. v. 56 (1924).

*Agapetes vaccinioidea* Lévillé in Bull. Acad. Intern. Géog. Bot. XII. 251 (1903); Fl. Kouy-Tchéou, 147 (1914). — **Synon. nov.**

*Vaccinium siccum* Lévillé & Vaniot in Fedde, Rep. Spec. Nov. IX. 447 (1911); Fl. Kouy-Tchéou, 154 (1914). — **Synon. nov.**

CHINA. K w e i c h o u : environs de Kouy-yang, mont du Collège çà et là, *E. Bodinier*, no. 1716bis, May 26, 1898, "petit sous-arbrisseau, fl. rosées-pourprées"; mont de Lou-tsong-koan, çà et là dans la montagne, *E. Bodinier*, no. 1716, July 21, 1897, "petit arbrisseau, très cassant" (syntypes of *Agapetes vaccinioidea*; merotype in A. A.); Ma-jo, *J. Cavalerie*, no. 3010, Nov. 1907 "fruits rouges" (holotype of *V. siccum*; photo. and merotype in A. A.).

#### MYRSINACEAE

Determined by E. H. WALKER

**Maesa tenera** Mez in Engler, Pflanzenr. IV.-236, p. 28 (1902).

*Maesa Martini* Lévillé, in Fedde, Rep. Spec. Nov. IX. 462 (1911); Fl. Kouy-Tchéou, 286 (1914). — **Synon. nov.**

CHINA. K w e i c h o u : bords du Hoa-kiang, *L. Martin* in hb. *Bodinier*, no. 2564, Feb. 18, 1899 (holotype of *Maesa Martini*; photo. in A. A.).

In his Flore du Kouy-Tchéou Lévillé enumerates *M. Martini* as a distinct species and on the same page as a synonym of *M. sinensis* A. DC. citing under it no. 2564 together with other numbers.

**Maesa japonica** (Thbg.) Moritzi apud Zollinger, Syst. Verz. Ind. Archip. III. 61 (1855). — Mez in Engler, Pflanzenr. IV.-236, p. 50, fig. 6 (1902).



*Pieris oligodonta* Léveillé in Bull. Soc. Bot. France, LIV. 369 (1907); Fl. Kouy-Tchéou, 150 (1914). — **Synon. nov.**

*Maesa Labordei* Léveillé in Fedde, Rep. Spec. Nov. ix. 462 (1911).

*Maesa Esquirolii* Léveillé, l. c. (1911); Fl. Kouy-Tchéou, 150 (1914). — **Synon. nov.**

*Maesa Cavaleriei* Léveillé, l. c. (1911); l. c. (1919). — **Synon. nov.**

*Maesa Dunniana* Léveillé, l. c. 463 (1911); l. c. (1914). — **Synon. nov.**

*Myrsine Esquirolii* Léveillé, in Fedde, Rep. Spec. Nov. XII. 186 (1913); Fl. Kouy-Tchéou, 288 (1914). — **Synon. nov.**

*Vaccinium oligodontum* Léveillé, Fl. Kouy-Tchéou, 150 (1914), pro synon. *Pieridis oligodontae*.

CHINA. K w e i c h o u : without precise locality, *J. Esquirol*, no. 895 (holotype of *Pieris oligodonta*; photo. in A. A.); environs de Tsin-gay dans la montagne à Lo-ten, *J. Laborde* in hb. *Bodinier*, no. 2513, Nov. 28, 1898 (holotype of *M. Labordei*; photo. in A. A.); Hoang-tsaop-pa, *J. Esquirol*, no. 1572, June 1909 (holotype of *M. Esquirolii*; photo. in A. A.); Tou-yun, *J. Cavalerie*, Nov. 10, 1899 (holotype of *M. Cavaleriei*; merotype and photo. in A. A.); Pin-fa, bois, *J. Cavalerie*, no. 459, Apr., July, Oct. 1907 "fleurs blanches, fruit blanc et graines noires" (syntypes of *M. Dunniana*; merotype in A. A.); bois de Bagnin, *J. Esquirol*, no. 2625, March 29, 1911 (holotype of *Myrsine Esquirolii*; photo. in A. A.).

The type specimen of *Pieris oligodonta* bears on the label only the name *Vaccinium oligodontum* in Léveillé's handwriting; the species was referred to *Maesa* first by J. Hutchinson according to a label on the type sheet, but under a new unpublished combination. *Maesa Labordei* is cited in the Flore du Kouy-Tchéou as a synonym of *M. Cavaleriei*.

**Ardisia tenera** Mez in Engler, Pflanzenr. iv.-236, p. 104 (1902).

*Ardisia Meziana* Léveillé in Fedde, Rep. Spec. Nov. x. 374 (1912); Fl. Kouy-Tchéou, 283 (1914). — **Synon. nov.**

CHINA. K w e i c h o u : Lo-fou, *J. Cavalerie*, no. 3550 (errore 3530), March 1909 (holotype of *A. Meziana*; photo. in A. A.).

**Ardisia brevicaulis** Diels in Bot. Jahrb. xxix. 519 (1900). — Mez in Engler, Pflanzenr. iv.-236, p. 143 (1902).

*Ardisia Bodinieri* Léveillé in Fedde, Rep. Spec. Nov. ix. 461 (1911); Fl. Kouy-Tchéou, 282 (1914). — **Synon. nov.**

CHINA. K w e i c h o u : district de Tsin-gay, vallée de Ly-moutchay, dans les rocailles boisées, au bord de la rivière, *E. Bodinier*, Jan. 14, 1898 (holotype of *A. Bodinieri*; merotype and photo. in A. A.).

**Ardisia crispa** (Thbg.) A. De Candolle in Trans. Linn. Soc. xvii. 124 (1834). — Mez in Engler, Pflanzenr. iv.-236, p. 144 (1902).

*Ardisia Labordei* Léveillé in Fedde, Rep. Spec. Nov. x. 373 (1912); Fl. Kouy-Tchéou (1914). — **Synon. nov.**



*Ardisia crispa* var. *Taquetii* Léveillé in Fedde, Rep. Spec. Nov. x. 374 (1912). — **Synon. nov.**

*Bladhia crispa* Thbg. var. *Taquetii* (Lévl.) Nakai, Trees Shrubs Jap. 1. 208 (1922); Fl. Sylv. Kor. XIII. 16, pl. 5 (1923).

*Ardisia Taquetii* Léveillé in litt. ex Nakai, l. c. (1923), pro synon. var. *Taquetii*.

*Bladhia lentiginosa* (Ker) Nakai var. *Taquetii* Nakai, Trees Shrubs Jap. ed. 2, 1. 284 (1927).

KOREA. **Q u e l p a e r t**: in sylvis secus torrentes, Hongno, *E. Taquet*, no. 2975, Oct. 1909 (holotype of *A. crispa* var. *Taquetii*; photo. and isotype in A. A.).

CHINA. **K w e i c h o u**: district de Tsin-gay, dans les bois à Kao-tchay, *J. Laborde* in hb. *Bodinier*, no. 2512, March 8, 1898 (holotype of *A. Labordei*; photo. in A. A.).

*Ardisia crispa* var. *Taquetii* Lévl. can hardly be separated as a distinct variety; it is said to differ chiefly in its longer less branched stems and longer leaves.

***Ardisia elegans*** Andrews, Bot. Rep. x. t. 623 (1811).

*Ardisia elegantissima* Léveillé in Fedde, Rep. Spec. Nov. x. 373 (1912). — **Synon. nov.**

CHINA. **H o n g k o n g**: bois de Happy Valley, *E. Bodinier*, no. 665, June 20, 1894 "arbuste de 1-2 m., branchant seulement en haut, les branches (ci-jointes) sont alternes et se séparent de la tige principale à l'angle droit formant une tête très elegante; fleurs roses, très belles, toutes retombantes." (holotype of *A. elegantissima*; photo. in A. A.).

This species, considered by Mez as a synonym of *Ardisia crispa* may be distinguished from that species by its almost total want of punctations and by the compound and more corymbose inflorescence on longer special branches, these with scattered leaves almost throughout their length. Léveillé's *A. elegantissima* corresponds in all essentials with the typical scallop-leaved forms considered to represent Andrews' species.

***Ardisia Henryi*** Hemsl. var. ***Dielsii*** (Lévl.) Walker, comb. nov.

*Ardisia Dielsii* Léveillé in Fedde, Rep. Spec. Nov. IX. 461 (1911); Fl. Kouy-Tchéou, 282 (1914); Cat. Pl. Yun-Nan, 177 (1916).

CHINA. **K w e i c h o u**: environs de Gan-pin, grande rocaille, dans les interstices des rochers, rare, *L. Martin* in hb. *Bodinier*, no. 1636, June 10, 1897 (syntype; photo. and merotype in A. A.); environs de Kouy-yang, mont du Collège, bois rocailles, rare, *E. Bodinier*, June 1, 1898 (syntype; ex Léveillé); Pin-fa, Tou-chan, *J. Cavalerie*, June 7, 1899 (syntype; photo. in A. A.).

*Ardisia Dielsii* has been referred to *A. Henryi* by Handel-Mazzetti according to a note on the type sheet of no. 1636. On the label of that



specimen Martin's name does not appear, while in Léveillé's description Bodinier's name is omitted from the citation of no. 1636. On Cavalerie's specimen from Pin-fa, which undoubtedly belongs here, neither the locality Tou-chan nor the date given by Léveillé appear.

From *A. Henryi* this variety differs in the longer and more slender leaves which are narrowly long-lanceolate, 12-20 cm. long and 1-4 cm. wide, the lateral nerves very clearly curved-ascending.

**Ardisia Faberi** Hemsley in Jour. Linn. Soc. Bot. xxvi. 64 (1889). — Mez in Engler, Pflanzenr. iv.-236, p. 153 (1902).

*Ardisia castaneifolia* Léveillé in Fedde, Rep. Spec. Nov. ix. 461 (1911). — Non Mez.

*Ardisia Cavaleriei* Léveillé in Fedde, Rep. Spec. Nov. x. 374 (1912); Fl. Kouy-Tchéou, 282 (1914); Cat. Pl. Yun-Nan, 177 (1916). —

**Synon. nov.**

CHINA. K w e i c h o u : environs de Tou-chan, *J. Cavalerie* in hb. *Bodinier*, June 1899 (syntype of *A. castaneifolia*; photo. in A. A.); Pin-fa, chutes d'eau, *J. Cavalerie*, no. 751, Dec. 9, 1910 (syntype of *A. castaneifolia*; ex Léveillé); Pin-fa, *J. Esquirol*, June 15, 1905 "fleurs roses, fruits d'un rouge clair" (syntype of *A. Cavaleriei*; photo. in A. A.).

Since *Ardisia castaneifolia* Lévl. is invalidated by the earlier homonyms *A. castaneifolia* Mez, Léveillé changed the name to *A. Cavaleriei*, citing an additional specimen under that name.

**Embelia oblongifolia** Hemsley in Jour. Linn. Soc. xxvi. 62 (1889). — Mez in Engler, Pflanzenr. iv.-236, p. 316 (1902).

*Embelia Bodinieri* Léveillé in Fedde, Rep. Spec. Nov. ix. 327 (1911); Fl. Kouy-Tchéou, 284 (1914). — **Synon. nov.**

CHINA. K w e i c h o u : without precise locality, *J. Esquirol*, no. 743 (holotype of *E. Bodinieri*; photo. in A. A.), no. 726 (cited in Fl. Kouy-Tchéou; duplicate in A. A.).

**Embelia pauciflora** Diels in Bot. Jahrb. xxix. 517 (1900). — Mez in Engler, Pflanzenr. iv.-236, p. 325 (1902).

*Embelia Schlechteri* Léveillé in Fedde, Rep. Spec. Nov. x. 374 (1912); Fl. Kouy-Tchéou, 285 (1914). — **Synon. nov.**

CHINA. K w e i c h o u : environs de Kouy-yang, mont du Collège, à l'entrée d'une grotte, *E. Bodinier*, no. 2049, Feb. 1898 "petit arbuste" (holotype of *E. Schlechteri*; merotype in A. A.).

Of the type of *Embelia pauciflora* only a photograph has been seen which, however, so closely corresponds in all observable characters with the type of *E. Schlechteri*, that this reduction can safely be made. Also the proximity of the type localities lends support to their identity.



**Embelia pauciflora** var. **Blinii** (Lévl.) Walker, comb. nov.

*Embelia Blinii* Léveillé in Fedde, Rep. Spec. Nov. x. 375 (1912); Fl. Kouy-Tchéou, 284 (1914).

*Embelia Dielsii* Léveillé, l. c. 374 (1912); Fl. Kouy-Tchéou, 284 (1914). — **Synon. nov.**

*Embelia Kaopoensis* Léveillé in Fedde, Rep. Spec. Nov. XII. 186 (1913).

CHINA. K w e i c h o u : Kouy-yang, mont du Collège, à Ke-ma-tong, *J. Chaffanjon* in hb. *Bodinier*, no. 2081, Feb. 1898 "liane de 2-3 m." (holotype of *E. Blinii*; merotype in A. A.); Pin-fa, bois, *J. Cavalerie*, no. 1327, Feb. 17, 1903 (holotype of *E. Dielsii*; photo. in A. A.); Kao-po, *E. Bodinier*, Dec. 15 (holotype of *E. Kaopoensis*; photo. in A. A.).

The variety corresponds, so far as available material reveals, in all respects with the species except in the leaf-shape which in the variety is narrowly oblong-lanceolate rather than ovate-lanceolate to ovate as in the species.

*Embelia Kaopoensis* was referred as a synonym to *E. Dielsii* by Léveillé in his Flore du Kouy-Tchéou.

**Myrsine semiserrata** Wallich in Roxburgh, Fl. Ind. II. 293 (1824); Mez in Engler, Pflanzenr. iv.-339 (1902). — Léveillé, Fl. Kouy-Tchéou, 288 (1914).

*Celastrus Cavaleriei* Léveillé in Fedde, Rep. Spec. Nov. XIII. 262 (1914). — **Synon. nov.**

*Celastrus Seguini* Léveillé, l. c. (1914).

CHINA. K w e i c h o u : Pin-fa, bois, rare, *J. Cavalerie*, no. 1744, Apr. 5, 1904 (holotype of *Celastrus Cavaleriei*; photo. in A. A.); environs de Hoang-ko-chou, rocailles de la cascade, *J. Seguin* in hb. *Bodinier*, no. 2609, March 15, 1899 "arbrisseau, plante femelle" (syntype of *Celastrus Seguini*; photo. in A. A.); environs de Kouy-yang, mont du Collège, sous les rochers de la cascade, *E. Bodinier*, no. 2180, March 30, 1898 "grand arbuste, plante femelle" (syntype of *C. Seguini*; photo. in A. A.).

*Celastrus Seguini* is cited by Léveillé in his Flore du Kouy-Tchéou (l. c.) as a synonym of *Myrsine semiserrata*, but Seguin, no. 2609, is not cited and Bodinier's no. 2180 is cited as no. 2181. *Celastrus Cavaleriei* is not cited as a synonym, but the type of this species, Cavalerie no. 1744, is enumerated under *Myrsine semiserrata* together with other Cavalerie numbers. *Celastrus Cavaleriei* Lévl. of 1914 cited above should not be confused with *C. Cavaleriei* Lévl. of 1916 (Monde des Pl. ser. 2, XVIII. 31) which is *C. stylosa* Wall. (Jour. Arnold Arb. XIV. 250).



**Myrsine africana** Linnaeus, Spec. Pl. 196 (1753). — Mez in Engler, Pflanzenr. iv.-236, p. 340, fig. 58 (1902).

*Rhamnus myrtillus* Léveillé in Fedde, Rep. Spec. Nov. xii. 535 (1913); Fl. Kouy-Tchéou, 343 (1915); Cat. Pl. Yun-Nan, 228 (1917). — **Synon. nov.**

CHINA. K w e i c h o u : Pin-fa, *J. Cavalerie*, no. 840, March 9, 1902 “fl. rouges” (cited in Fl. Kouy-Tchéou under *Rhamnus myrtillus*; duplicate in A. A.). Y u n n a n : collines de Tong-tchouan, sous bois, alt. 2550 m., *E. E. Maire*, in 1912 “arbrisseau buissonnant toujours vert, haut 0.30 m., fl. vertes, fruit noir” (holotype of *Rhamnus myrtillus*; merotype in A. A.).

**Rapanea neriifolia** (S. & Z.) Mez in Engler, Pflanzenr. iv.-236, p. 361 (1902).

*Myrsine Seguni* Léveillé, Fl. Kouy-Tchéou, 228 (1914). — **Synon. nov.**

CHINA. K w e i c h o u : environs de Ou-la-gay, pref. de Chen-lin, dans les rocailles, *J. Seguin* in hb. *Bodinier*, no. 2253, Apr. 10, 1898, “grand arbuste” (holotype of *Myrsine Seguni*; merotype in A. A.).

#### PRIMULACEAE

Determined by H. HANDEL-MAZZETTI<sup>1</sup>

**Lysimachia Navillei** (Lévl.) Handel-Mazzetti, comb. nov.

*Diospyros Navillei* Léveillé, Fl. Kouy-Tchéou, 145 (1914).

*Lysimachia solanoides* Handel-Mazzetti in Not. Bot. Gard. Edinb. xvl. 70 (1928).

CHINA. K w e i c h o u : Tchei-tchou, *J. Esquirol*, no. 749, Aug. 1905, “fl. blanche” (holotype of *Diospyros Navillei*; photo. in A. A.; a duplicate of this number is a syntype of *L. solanoides*).

There are apparently two specimens of Esquirol's no. 749 in the Herbarium Léveillé; one is cited under *Diospyros Navillei* with the locality given as “Tchei-tchou” and one under *Lysimachia foenum-graecum* (Fl. du Kouy-Tchéou, 324. 1915) with the locality “Tche-tchou.” The latter is one of the two specimens on which Handel-Mazzetti based his *L. solanoides*. By Léveillé the specimen of *D. Navillei* is cited as no. 249, by Handel-Mazzetti as no. 749. The latter is correct; the first figure of the number on the label in the Herb. Léveillé is partly cut off, so that it looks like “2,” but the correct number 749 in blue pencil is found on the same label.

<sup>1</sup>Only those species of *Lysimachia* are enumerated here which had been referred by Léveillé to ligneous genera.



**Lysimachia lancifolia** Craib in Kew Bull. Misc. Inform. 1918, p. 363. — Handel-Mazzetti in Not. Bot. Gard. Edinb. xvi. 72 (1928).

*Ardisia Esquirolii* Lévillé in Fedde, Rep. Spec. Nov. xii. 186 (1913); Fl. Kouy-Tchéou, 283 (1914); non *Lysimachia Esquirolii* Bonati (1913). — **Synon. nov.**

CHINA. K w e i c h o u : chute d'eau de Hoang-tsaou-pa, *J. Esquirol*, no. 1546, June 1909 "fleurs jaunes" (holotype of *Ardisia Esquirolii*; photo. and merotype in A. A.).

**Lysimachia capillipes** Hemsl. var. **Cavaleriei** (Lévl.) Handel-Mazzetti, comb. nov.

*Andrachne Cavaleriei* Lévillé in Fedde, Rep. Spec. Nov. xii. 187 (1913); Fl. Kouy-Tchéou, 158 (1914).

CHINA. K w e i c h o u : Ta-ting, grotte no. 2, alt. 630 m., *J. Esquirol*, no. 2238, Sept. 1910 (holotype of *Andrachne Cavaleriei*; photo. in A. A.).

#### SAPOTACEAE

**Sideroxylon Wightianum** Hooker & Arnott, Bot. Beechey Voy. 196, t. 41 (1841).

*Rhamnus coriaceifolius* Lévillé in Fedde, Rep. Spec. Nov. xii. 535 (1913); Fl. Kouy-Tchéou, 342 (1915). — **Synon. nov.**

CHINA. K w e i c h o u : Chouang-chan-po, *J. Esquirol*, no. 3142, May 1911 (holotype of *Rhamnus coriaceifolius*; photo. and merotype in A. A.).

*Sideroxylon Wightianum* has apparently not been reported as yet from western and central China.

#### EBENACEAE

**Diospyros mollifolia** Rehder & Wilson in Sargent, Pl. Wilson. ii. 591 (March 30, 1916). — Lévillé, Cat. Pl. Yun-Nan, 83 (1916).

*Diospyros Mairei* Lévillé, Cat. Pl. Yun-Nan, 83 (May 5, 1916). — **Synon. nov.**

CHINA. Y u n n a n : collines arides rocheuses derrière Lo-kou, 2450 m., *E. E. Maire*, May 1912 "grand arbuste, très rameux; fl. jaune-verdâtres" (holotype of *D. Mairei*; merotype in A. A.).

**Diospyros Esquirolii** Lévillé, Fl. Kouy-Tchéou, 145 (1914).

CHINA. K w e i c h o u : ramparts de Kouy-yang-fou, *J. Esquirol*, no. 449, May 1905 "arbre 12 à 14 m." (holotype; merotype and photo. in A. A.).

According to a note on the type sheet Handel-Mazzetti considers this a good species related to *D. dumetorum* W. W. Sm.



**Diospyros kaki** L. f. var. **silvestris** Makino in Tokyo Bot. Mag. XXII. 159 (1908).

*Diospyros Argyi* Léveillé in Mem. Acad. Ci. Art. Barcelona, ser. 3, XII. 550 (Cat. Pl. Kiang-Sou, 10) (1916). — **Synon. nov.**

CHINA. K i a n g s u : Sou-tchéou-fou; Ve-ven; Tchong-tchéou-fu, Ven-sie, iles du Se-men, Ta-hou, *Ch. d'Argy* [1861-74] (holotype of *D. Argyi*; photo. in A. A.).

Though six localities are numerated on the folder of the specimen and cited by Léveillé, there is only one specimen with fragments of ripe fruits in the Herbarium Léveillé. According to a note on the type sheet this specimen was identified by Handel-Mazzetti as *D. kaki* var. *silvestris*.

#### STYRACACEAE

**Pterostyrax Leveillei** (Fedde) Chun in Hooker's Icon. Pl. XXXII. t. 3161 (1932).

*Styrax Cavaleriei* Léveillé in Fedde, Rep. Spec. Nov. IX. 447 (1911). — Non Léveillé (1907).

*Styrax Leveillei* Fedde apud Léveillé, Fl. Kouy-Tchéou, 407 (1915).

*Pterostyrax Cavaleriei* (Lévl.) Guillaumin in Bull. Soc. Bot. France, LXX. 886 (1924).

CHINA. K w e i c h o u : route de Pin-fa à Tou-yun, rare, *J. Cavalerie*, no. 2992, May 1905, "fleur blanc-cendre" (holotype of *Styrax Cavaleriei* of 1911 and of *S. Leveillei*; photo. in A. A.).

This species, easily distinguished from the other species of the genus by its tricuspidate leaves, has also been found in Kwangsi near the Kweichou border (R. C. Ching, no. 2962).

**Styrax Argyi** Léveillé in Fedde, Rep. Spec. Nov. XI. 64 (1912); Fl. Kouy-Tchéou, 407 (1915).

*Styrax iopilina* Diels in Notizbl. Bot. Gart. Mus. Berlin, IX. 1028 (1926). — **Synon. nov.**

CHINA. K i a n g s u : without precise locality, *Ch. d'Argy*, (1861-74) (holotype; merotype in A. A.).

I have little doubt that *S. iopilina* Diels which is represented in this herbarium by an isotype and photograph of the type, is referable as a synonym to *S. Argyi*. Since the latter is known only with flower buds and the former with fruits, the comparison has to depend on vegetative characters and the inflorescence, in which I can find no difference.

**Styrax japonicus** Siebold & Zuccarini, Fl. Jap. I. 53, t. 23 (1835). — Perkins in Engler, Pflanzenr. IV.-241 (Heft 30), 73 (1907).

*Styrax Bodinieri* Léveillé in Fedde, Rep. Spec. Nov. IV. 332 (1907); Fl. Kouy-Tchéou, 407 (1915). — **Synon. nov.**



CHINA. K w e i c h o u : environs de Kouy-yang, mont du Collège, *E. Bodinier*, no. 2221, Apr. 1898 "grand arbuste a fleurs blanches odorantes" (holotype of *S. Bodinieri*; photo. in A. A.).

*Styrax Bodinieri* was first identified with *S. japonicus* by W. W. Smith according to a note on the type sheet.

**Styrax grandiflorus** Griffith, Notul. Pl. As. iv. 287 (1854). — Perkins in Engler, Pflanzenr. iv.-241 (Heft 30), 75 (1907).

*Styrax Cavaleriei* Léveillé in Fedde, Rep. Spec. Nov. iv. 331 (1907); Fl. Kouy-Tchéou, 407 (1915). — **Synon. nov.**

*Styrax touchanensis* Léveillé in Fedde, Rep. Spec. Nov. xi. 64 (1912); Fl. Kouy-Tchéou, 407 (1915). — **Synon. nov.**

CHINA. K w e i c h o u : Long-ly, *J. Cavalerie*, no. 997, May 7, 1903, "fleurs blanches" (holotype of *S. Cavaleriei*; merotype in A. A.); Tou-chan, *E. Bodinier*, April 1902 (holotype of *S. touchanensis*; merotype in A. A.).

*Styrax touchanensis* and *S. Cavaleriei* have been determined by W. W. Smith as *S. grandiflorus* according to notes on the type sheet; the second species as *S. grandiflorus* forma.

#### SYMPLOCACEAE

**Symplocos setchuensis** Brand in Bot. Jahrb. xxix. 528 (1900); in Engler, Pflanzenr. iv.-242 (Heft 6), 31 (1901).

*Symplocos Argyi* Léveillé in Fedde, Rep. Spec. Nov. x. 431 (1912); in Mem. Acad. Ci. Art. Barcelona, ser. 3, xii. 562 (Cat. Pl. Kiang-Sou, 22) (1916). — **Synon. nov.**

CHINA. K i a n g s u : Y-hien-hien, Long-ze près Tsang-fou, *Ch. d'Argy* (1861-74) (holotype of *S. Argyi*; merotype in A. A.).

**Symplocos coronigera** Léveillé in Fedde, Rep. Spec. Nov. x. 431 (1912); Fl. Kouy-Tchéou, 409 (1915).

*Symplocos Wilsonii* Brand in Fedde, Rep. Spec. Nov. iii. 216 (Dec. 31, 1906); non Hemsley (July 1906). — **Synon. nov.**

*Symplocos xanthoxantha* in Bull. Géog. Bot. xxiv. 283 (1914); Cat. Pl. Yun-Nan, 268 (1917). — **Synon. nov.**

CHINA. W e s t e r n H u p e h : north and south of Ichang, *E. H. Wilson*, Veitch Exp. no. 58, April, Sept. 1900 (syntypes of *S. Wilsonii*; isotypes in A. A.). E a s t e r n S z e c h u a n : Tchen-kéoutin, *P. Farges*, no. 796 (syntype of *S. Wilsonii*; isotype in A. A.). K w e i c h o u : Ma-jo, *J. Cavalerie*, no. 3106, July 24, 1897 (holotype of *S. coronigera*; merotype in A. A.). Y u n n a n : sous bois de montagnes de Mo-tsou, alt. 3000 m., *E. E. Maire*, April 1913 (holotype of *S. xanthoxantha*; photo. in A. A.).

*Symplocos xanthoxantha* was first identified with *S. Wilsonii* Brand



by A. Guillaumin according to a note on the type specimen dated 22, III. 1924, but *S. Wilsonii* Brand is invalidated by the earlier homonym *S. Wilsonii* Hemsl. which is identical with *S. stellaris* Brand. *Symplocos coronigera* is closely related to *S. setchuensis*, from which it chiefly differs in the bracts and sepals being glabrous on the back, also in the usually oblong fruit 8-12 mm. long (ovoid and about 6-7 mm. long in *S. setchuensis*), in the generally longer petioles and in the usually somewhat larger inflorescence often with a distinct axis which in fruit may be 5-10 mm. long. The species has been often confused with *S. setchuensis*, of which it may be only a variety; most western specimens usually referred to *S. setchuensis* belong to *S. coronigera*, as do all the specimens from Yunnan I have seen, additional specimens from Kweichou (W. Y. Chun, no. 7746, and A. N. Steward, Chias & Cheo, no. 486) and most of the specimens from Szechuan. In the eastern provinces *S. coronigera* does apparently not occur and all the material before me from Chekiang and Kiangsi is *S. setchuensis*.

***Symplocos paniculata*** (Thbg.) Miquel in Ann. Mus. Bot. Lugd.-Bat. III. 102 (1867); Prol. Fl. Jap. 266 (1867).

*Symplocos crataegoides* Hamilton apud D. Don, Prodr. Fl. Nepal. 145 (1825). — Léveillé, Fl. Kouy-Tchéou, 409 (1914); Cat. Pl. Yun-Nan, 268 (1917). — Brand in Engler, Pflanzenr. iv.-242 (Heft 6), 33 (1901).

*Symplocos paniculata* Wallich ex Don, Fl. Nepal. 145 (1825), pro synonym. *S. crataegoidis*. — Wallich, Num. List, no. 4429 (1832), nom. nud.

*Cotoneaster coreanus* Léveillé in Fedde, Rep. Spec. Nov. XI. 64 (1912). — **Synon. nov.**

*Prunus Mairei* Léveillé in Bull. Géog. Bot. xxv. 45 (1915); Cat. Pl. Yun-Nan, 233 (1917). — **Synon. nov.**

*Crataegus Lyi* Léveillé, Fl. Kouy-Tchéou, 346 (1915). — **Synon. nov.**

*Prunus Lyi* Blin ex Léveillé, l. c. (1915), pro synonym. *Crataegi Lyi*.

KOREA. Q u e l p a e r t : in sylvis Hallaisan, 1400 m., *E. Taquet*, no. 1106, Sept. 7, 1908 (holotype of *Cotoneaster coreanus*; merotype and isotype in A. A.).

CHINA. K w e i c h o u : route de Gan-pin à Kouy-yang, *J. Cavalerie*, no. 2098, pro parte (fr.) (holotype of *Crataegus Lyi*; photo. in A. A.). Y u n n a n : flanc de montagne à Pé-long-tsin, 3200 m., *E. E. Maire*, May (1912?), "arbre-moyen, fl. blanches" (syntype of *Prunus Mairei*; merotype in A. A.); rochers du plateau de Sin-tang, 2800 m. *E. E. Maire*, May 1912 (syntype of *P. Mairei*, ex Léveillé).

***Symplocos paniculata biloba*** f. (Lévl.), stat. nov.

*Crataegus biloba* Léveillé, Fl. Kouy-Tchéou, 346 (1915).



CHINA. K w e i c h o u : route de Gan-pin à Kouy-yang, *J. Cavalerie*, no. 2098, pro parte (fl.) (holotype of *Crataegus biloba*; photo. in A. A.).

This is an interesting variation with all the leaves distinctly obcordate and deeply emarginate at the apex. The leaf of *S. paniculata* is normally elliptic or oval to oblong and acute or acuminate at the apex, but sometimes at least part of the leaves are rounded at the apex and occasionally slightly emarginate as in Henry no. 9948, Rock no. 3160, and Schoch no. 50 from Yunnan and H. H. Hu 1598 from Chekiang.

***Symplocos fasciculata*** Zoll. var. ***chinensis*** Brand in Fedde, Rep. Spec. Nov. III. 217 (1906).

*Symplocos Stapfiana* Léveillé in Fedde, Rep. Spec. Nov. IX. 444 (1911); Fl. Kouy-Tchéou, 410 (1915). — **Synon. nov.**

CHINA. K w e i c h o u : Kai-tchéou, Ma-jo, *J. Cavalerie*, no. 3287, June-Aug. 1908, "arbre à fleurs blanches, fruits noirs" (holotype of *S. Stapfiana*; photo. in A. A.).

*Symplocos Stapfiana* has been identified by A. Guillaumin as *S. fasciculata* var. *chinensis* according to a note on the type sheet. I have not seen the type of Brand's variety which is described as having 30-40-flowered fascicles; Cavalerie's plant has the flowers in 5-7-flowered solitary racemes only occasionally with 1 to 2 branches at the base. Léveillé describes the fruit but I have seen only a flowering specimen.

***Symplocos pinfaensis*** Léveillé in Fedde, Rep. Spec. Nov. IX. 77 (1910).

*Symplocos spicata* Léveillé, Fl. Kouy-Tchéou, 410 (1915), pro parte, quoad Cavalerie 838; vix Roxburgh.

CHINA. K w e i c h o u : Pin-fa, *J. Cavalerie*, no. 838, March 18, 1902, "fl. blanches odorantes" (holotype; photo. in A. A.).

This species resembles very much *S. terminalis* Brand, but the two inflorescences present are simple short racemes, the flowers have fewer stamens, about 20, and the leaves are chartaceous with the veins above slightly raised, not impressed as in *S. terminalis*. It also resembles the following species, but differs in the short racemes, fewer stamens and in the smaller and comparatively broader leaves. It may also be compared with *S. lancifolia* S. & Z. and *S. caudata* Wall. which both have simple racemes, but smaller flowers partly stalked in the latter.

***Symplocos laurina*** (Retz.) Wallich, Num. List, no. 4416 (1832). — Rehder & Wilson in Sargent, Pl. Wilson. II. 594 (1916).

*Symplocos spicata* Roxburgh, Cat. Hort. Beng. 40 (1814), nom. nud.; Fl. Ind. ed. 2, II. 541 (1832). — Léveillé, Fl. Kouy-Tchéou, 410 (1915), excl. no. 838; Cat. Pl. Yun-Nan, 268 (1917).



*Eurya Cavaleriei* Léveillé in Fedde, Rep. Spec. Nov. ix. 450 (1911).

*Maesa Bodinieri* Léveillé & Blin in Léveillé, Fl. Kouy-Tchéou, 286 (1914). — **Synon. nov.**

*Symplocos vinoso-dentata* Léveillé in Bull. Géog. Bot. xxiv. 283 (1914); Fl. Kouy-Tchéou, 410 (1915). — **Synon. nov.**

CHINA. K w e i c h o u : Pin-fa, Juin-ou-chan, *J. Cavalerie*, no. 406, Sept. 8, 1902 (holotype of *Eurya Cavaleriei* and *Maesa Bodinieri*; photo. in A. A.). Y u n n a n : colline de Long-ky, 500 m., *E. E. Maire*, June 1913, "gros arbre à feuilles persistantes, fl. jaunâtre" (holotype of *S. vinoso-dentata*; merotype in A. A.).

In his Flore du Kouy-Tchéou (l. c.) Léveillé transferred *Eurya Cavaleriei* to *Maesa* as *M. Bodinieri*. In *Cavalerie* no. 406 the leaves are only sparingly denticulate above the middle, while in *Maire's* specimen they are serrate except near the base; in both specimens they are oblong to oblong-lanceolate and about 15 cm. long. Both specimens are referable to var. *acuminata* (Bl.) Brand which, however, hardly differs enough to be maintained as a distinct variety.

***Symplocos lancifolia*** Siebold & Zuccarini in Abh. Akad. Muench. iv. pt. 3, p. 133 (Fl. Jap. Fam. Nat. II. 9) (1846). — Brand in Engler, Pflanzenr. iv.-242, p. 41 (1901).

*Symplocos aurea* Léveillé in Fedde, Rep. Spec. Nov. ix. 445 (1911); Fl. Kouy-Tchéou, 409 (1915). — **Synon. nov.**

CHINA. K w e i c h o u : Pin-fa, hautes montagnes, *J. Cavalerie*, no. 2312, April 26, 1906 "arbre 2 m., fleurs blanches, légèrement odorantes" (holotype of *S. aurea*; merotype in A. A.).

***Symplocos Bodinieri*** Brand in Fedde, Rep. Spec. Nov. III. 217 (1906).

*Symplocos Balfourii* Léveillé in Fedde, Rep. Spec. Nov. ix. 77 (1910); Fl. Kouy-Tchéou, 409 (1915). — **Synon. nov.**

*Maesa aurea* Léveillé in Fedde, Rep. Spec. Nov. x. 375 (1912); Fl. Kouy-Tchéou, 286 (1914). — **Synon. nov.**

CHINA. K w e i c h o u : Pin-fa, bois, *J. Cavalerie*, no. 2527, Oct. 11, 1905, "arbuste, fl. blanches" (holotype of *S. Balfourii*; photo. in A. A.); environs de Tou-chan, *J. Cavalerie*, no. 2719, Oct. 1, 1899 "arbuste" (holotype of *Maesa aurea*; photo. in A. A.; a duplicate in hb. Paris being the holotype of *S. Bodinieri* Brand).

*Symplocos Balfourii* has been identified in 1924 by Guillaumin as *S. Bodinieri* according to a note on the type sheet. *Cavalerie* 2719 in herb. Léveillé is the type of *Maesa aurea* and another specimen of *Cavalerie* 2719 in herb. Paris is the type of *S. Bodinieri* Brand, though by Brand the number is cited as 2179, which apparently is a misprint for 2719.



**Symplocos botryantha** Franchet in Nouv. Arch. Mus. Paris, sér. 2, x. 60 (Pl. David. II. 98) (1888). — Brand in Engler, Pflanzenr. iv.-242, p. 60 (1901).

*Symplocos caerulea* Léveillé in Fedde, Rep. Spec. Nov. ix. 77 (1910); Fl. Kouy-Tchéou, 409 (1915). — **Synon. nov.**

CHINA. K w e i c h o u : Pin-fa, *J. Cavalerie*, nos. 2293, 2403, April 13 and June 5, "petit arbre, fl. blanches et bleu d'azur" (syntypes of *S. caerulea*; merotype (June 5) and photo. (Apr. 13) in A. A.).

**Symplocos Cavaleriei** Léveillé in Fedde, Rep. Spec. Nov. ix. 77 (1910); Fl. Kouy-Tchéou, 409 (1915).

CHINA. K w e i c h o u : Pin-fa, Niang-ouang, *J. Cavalerie*, no. 1022, May 28, 1903, "arbrisseau" (holotype; photo. in A. A.).

This species seems to be related to *S. botryantha*, but is easily distinguished by the small obovate-oblong, closely crenate-serrulate leaves rather abruptly contracted into a short obtuse acumen, and by the small fruit in short racemes.

**Symplocos Martini** Léveillé in Fedde, Rep. Spec. Nov. ix. 77 (1910); Fl. Kouy-Tchéou, 410 (1915).

CHINA. K w e i c h o u : Kouy-yang, mont du Collège, *E. Bodinier*, April 1898 (holotype; photo. in A. A.).

This is very similar to *S. botryantha* Franch., but the leaves are broader, generally elliptic and the calyx-tube is silky-strigose.

**Symplocos punctata** Brand in Fedde, Rep. Spec. Nov. III. 217 (1906).

*Symplocos Bodinieri* Léveillé in Fedde, Rep. Spec. Nov. ix. 76 (1910); non Brand.

*Symplocos splendens* Léveillé in Fedde, Rep. Spec. Nov. XII. 186 (1913); Fl. Kouy-Tchéou, 410 (1915); Cat. Ill. Pl. Seu-Tchouen, pl. 62 (1918) MS. — **Synon. nov.**

CHINA. K w e i c h o u : environs de Kouy-yang, dans les bois de la pagode de Kien-lin-chan, rare, *E. Bodinier*, no. 2224, April 14, 1898, "arbre de moyenne hauteur à belles fleurs bleues d'une odeur délicieuse" (holotype of *S. Bodinieri* and *S. splendens*; photo. in A. A.; an isotype in herb. Paris being the holotype of *S. punctata* Brand).

*Symplocos punctata* Brand and *S. Bodinieri* Lévl. are both based on Bodinier's no. 2224, the former on a specimen in the Paris herbarium, the latter on one in the herbarium Léveillé. The name *S. Bodinieri* was changed later by Léveillé to *S. splendens* on account of the earlier *S. Bodinieri* Brand.

**Symplocos anomala** Brand in Bot. Jahrb. XXIX. 67 (1900); in Engler, Pflanzenr. iv.-242, p. 67 (1901).



*Symplocos Dielsii* Léveillé in Fedde, Rep. Spec. Nov. ix. 445 (1911); Fl. Kouy-Tchéou, 409 (1915). — **Synon. nov.**

*Symplocos Esquirolii* Léveillé, l. c. (1911); l. c. (1915). — **Synon. nov.**

CHINA. K w e i c h o u : route Pin-fa à Long-ly, bois, *J. Cavalerie*, no. 3330, Aug. 10, 1908 (holotype of *S. Dielsii*; photo. in A. A.); Pin-fa, Ma-jo, *J. Cavalerie*, no. 2380, June 1908, "arbrisseau" (holotype of *S. Esquirolii*; merotype in A. A.).

*Symplocos Dielsii* has been identified by A. Guillaumin with *S. anomala* according to a note on the type sheet. *Symplocos Esquirolii* I refer to the same species, though the fruits are up to 1 cm. long, but the leaves agree exactly with those of *S. anomala*.

***Symplocos adenopus*** Hance in Jour. Bot. XXI. 322 (1883). — Brand in Engler, Pflanzenr. iv.-242, p. 67 (1901).

*Symplocos Prainii* Léveillé in Fedde, Rep. Spec. Nov. ix. 445 (1911); Fl. Kouy-Tchéou, 410 (1915). — **Synon. nov.**

CHINA. K w e i c h o u : route de Pin-fa à Tou-yun, bois, rare, *J. Cavalerie*, no. 2966, Aug. 2, 1908, "arbre, fl. blanc-rosée" (holotype of *S. Prainii*; photo. and merotype in A. A.).

Cavalerie no. 2966 differs slightly from the type of *S. adenopus* in its leaves having a tendency toward an oblong-ovate shape being mostly broadest below the middle, while in the type specimen the leaves are slightly broader above the middle.

***Symplocos stellaris*** Brand in Bot. Jahrb. XXIX. 528 (1900); in Engler, Pflanzenr. iv.-242, p. 68 (1901).

*Symplocos Dunniana* Léveillé in Fedde, Rep. Spec. Nov. ix. 445 (1911); Fl. Kouy-Tchéou, 409 (1915). — **Synon. nov.**

*Litsea Chaffanjonii* Léveillé in Fedde, Rep. Spec. Nov. XII. 182 (1913); Fl. Kouy-Tchéou 220 (1914). — **Synon. nov.**

*Symplocos neriifolia* Guillaumin in Lecomte, Fl. Gén. Indochine, III. 1011 (1933), quoad syn. *S. Dunnianus*. — Non Sieb. & Zucc.

CHINA. K w e i c h o u : route de Pin-fa à Tou-yun, bois, *J. Cavalerie*, no. 3016, May 10, 1908, "arbre, fl. blanc-rose, odor." (holotype of *S. Dunniana*; photo. in A. A.); environs de Kouy-yang, mont du Collège, *J. Chaffanjon*, no. 2244, April 15, 1898, "arbre" (holotype of *Litsea Chaffanjonii*; photo. in A. A.).

***Symplocos Mairei*** Léveillé in Monde Pl. ser. 2, XVIII. 28 (1916), Cat. Pl. Yun-Nan, 268 (1917).

CHINA. Y u n n a n : brousse des collines à Long-ky, 500 m., *E. E. Maire*, June 1912 "petit arbre à feuilles persistentes, fl. jaunes" (holotype; merotype in A. A.).

This species is very similar to the preceding species, but the margin of



the leaves is rather closely and finely denticulate nearly to the base with 3-4 teeth to 1 cm. almost reduced to a gland-like conical mucro, and the lateral veins and transverse veinlets are prominent beneath and impressed above; the not fully open closely fascicled flowers are smaller, with broader and shorter petals and quite glabrous, not ciliate, calyxlobes. I have not been able to identify it with any described species.

In the Herb. L eveill e there is another specimen from the same locality named in L eveill e's handwriting "*Symplocos Mairei* L evl." which represents an entirely different species. It is very similar and apparently referable to *S. myriantha* Rehd. from Szechuan, but the inflorescences are much less branched and in several instances consist of simple short racemes, but some have at the base small branches with a few crowded flowers. Shape and venation of the leaves are exactly the same and so is the pubescence of the inflorescence and the color of the branches. The flowers of Maire's specimen, however, seem to be somewhat larger, but they are almost all fully open, while those of the type of *S. myriantha* are still in bud.

#### OLEACEAE

**Fontanesia Fortunei** Carri ere in Rev. Hort. 1859, p. 43. — Schneider, Ill. Handb. Laubholz. II. 809, fig. 511a-d (1911).

*Fontanesia Argyi* L eveill e in Mem. Acad. Ci. Art. Barcelona, ser. 3, XII. 557 (Cat. Pl. Kiang-Sou, 17) (1916). — **Synon. nov.**

CHINA. K i a n g s u : Siao-tse-jang, *Ch. d'Argy* [1861-74], "sepes vivas et densas constituit" (holotype of *F. Argyi*; merotype in A. A.).

**Fraxinus Griffithii** C. B. Clarke in Hooker f., Fl. Brit. Ind. III. 605 (1882). — Lingelsheim in Engler, Pflanzenr. IV.-243<sup>1-11</sup>, p. 15 (1920).

*Ligustrum Vanioti* L eveill e, Cat. Pl. Yun-Nan, 181 (1916). — **Synon. nov.**

CHINA. Y u n n a n : rochers de Ma-hong, 3000 m., *E. E. Maire*, June 1912, "petit arbre, feuilles caduques, fl. blanches" (holotype of *Ligustrum Vanioti*; photo. in A. A.).

L eveill e apparently mistook the pinnate leaves for slender branchlets with simple leaves and did not examine the flowers closely.<sup>1</sup>

**Syringa Mairei** (L evl.), comb. nov.

*Ligustrum Mairei* L eveill e, Cat. Yun-Nan, 181 (1916).

*Syringa rugulosa* McKelvey in Jour. Arnold Arb. VI. 153 (1925); Lilacs, 148 (1928). — **Synon. nov.**

<sup>1</sup>Under the genus *Fraxinus* L eveill e described only one new species, *Fraxinus Fauriei* (Fedde, Rep. Spec. Nov. VIII. 285, 1910) from Quelpaert, based on Faurie no. 1867; this turns out to be *Meliosma Oldhamii* Miq. and has been already referred to that species by Nakai in 1918 (Tokyo Bot. Mag. XXXII. 119, 1918).



CHINA. Y u n n a n : brousse des montagnes à Tcha-ho, 2600 m., *E. E. Maire*, July (1910-13), "arbuste buissonnant, haut 1.80 m.; fl. rose violacé" (holotype of *Ligustrum Mairei* in Herb. Léveillé and holotype of *Syringa rugulosa* in Herb. Edinb.; photos. of both in A. A.); brousse des montagnes à Pe-long-tsin, 3000 m., *E. E. Maire*, June [1910-13], "petit arbre buissonnant, peu rameaux, fl. blanches, en grappes dressées" (paratype of *S. rugulosa*; in Herb. A. A.).

*Ligustrum Mairei* and *Syringa rugulosa* are based on two specimens of the same collection. The identity of both has been first established in the herbarium at Edinburgh according to a note on the cover of the specimen.

***Syringa Fauriei*** Léveillé in Fedde, Rep. Spec. Nov. VIII. 285 (1910). — Nakai in Jour. Coll. Sci. Univ. Tokyo, XXXI. Add. 509 (Fl. Kor. pt. II.) (1911); Fl. Sylv. Kor. x. 46 (1921). — McKelvey, Lilacs, 507 (1928).

KOREA. K ō g e n P r o v . : in monte des diamants, *U. Faurie*, no. 714, June 21, and no. 722, May 22, 1906 (syntypes; isotypes in A. A.).

This is closely related to *S. amurensis* Rupr., but readily distinguished by the lanceolate or oblong-lanceolate leaves short-pilose beneath along the midrib and the lower part of the lateral veins.

***Osmanthus Delavayi*** Franchet in Bull. Soc. Linn. Paris, I. 613 (1886). — Léveillé in Cat. Pl. Yun-Nan, 181 (1916).

*Ligustrum phillyrea* Léveillé in Bull. Géog. Bot. xxv. 41 (1915); Cat. Pl. Yun-Nan, 181 (1916). — **Synon. nov.**

CHINA. Y u n n a n : rochers moussus de Io-chan, 3200 m., *E. E. Maire*, May 1912, "sous-arbrisseau toujours vert, haut 0.20 m., fl. blanches" (syntype of *Ligustrum phillyrea*; photo. in A. A.); brousse de montagnes à Pe-long-tsin, 3200 m., *E. E. Maire*, May 1912 (syntype of *Ligustrum phillyrea*; ex Léveillé); haut plateau de Ta-hai-tse, 3200 m., *E. E. Maire*, May [1912], "petit arbre à feuilles persistantes, fl. blanches" (on same sheet with the specimen from Io-chan).

*Ligustrum phillyrea* has been identified with *Osmanthus Delavayi* in the Herbarium at Edinburgh according to a note on the cover of the specimen. I have not seen the specimen from Pe-long-tsin. On the same sheet with the syntype from Io-chan there is another label cited above; the three branches on this sheet are in bloom and exactly alike, so that it is not possible to say which came from Io-chan and which from Ta-hai-tse.



**Chionanthus retusa** Lindley & Paxton in Paxton Flow. Gard. III. 85, fig. 273 (1853). — Nakai, Fl. Sylv. Kor. x. 16, t. 1, fig. a-c (1921).

*Chionanthus retusa* var. *Mairei* Léveillé in Fedde, Rep. Spec. Nov. XIII. 175 (1914); Cat. Pl. Yun-Nan, 179 (1916). — **Synon. nov.**

CHINA. Y u n n a n : environs de Tong-tchouan, 2700 m., *E. E. Maire*, May 1911 (holotype of *C. retusa* var. *Mairei*; ex Léveillé); rochers en face de Pi-ka-ting, 2500 m., *E. E. Maire*, May (1911-13).

I have not seen the holotype of Léveillé's variety, but another specimen from the Léveillé herbarium cited above, which bears in his handwriting the name given by Léveillé. There is also a specimen of *Ch. retusa* from Korea (Faurie no. 517) in the Léveillé herbarium which Léveillé has named in honor of the collector, but later reduced to a variety of *Ch. retusa* and apparently never published.

**Chionanthus retusa** var. *coreana* (Lévl.) Nakai in Tokyo Bot. Mag. XXXII. 115 (1918); Fl. Sylv. Kor. x. 17, t. 1, fig. d (1921).

*Chionanthus coreanus* Léveillé in Fedde, Rep. Spec. Nov. VIII. 280 (1910).

KOREA. Q u e l p a e r t : secus torrentes Htepyeng, rare, *E. Taquet*, no. 1515, May 5, 1908 (holotype of *Ch. coreanus*; isotype in A. A.).

This is perhaps best considered only a form of *Ch. retusa*. The species is very variable in the shape of its leaves which may vary in the typical form from emarginate to acute or sometimes slightly acuminate even on the same plant. In its oblong to oblong-lanceolate shape of the leaves the variety is rather distinct, but not all the leaves are as clearly acuminate as shown in Nakai's plate, part of them are obtuse or acute; Léveillé describes the leaves as ovate which does not agree with his measurements, and as obtusish which fits only part of the leaves.

**Ligustrum lucidum** Aiton, Hort. Kew ed. 2, I. 19 (1810). — Léveillé, Fl. Kouy-Tchéou, 295 (1914); Cat. Pl. Yun-Nan, 181 (1916). — Mansfeld in Bot. Jahrb. LIX. Beibl. 132, p. 49 (1924).

*Ligustrum Esquirolii* Léveillé in Fedde, Rep. Spec. Nov. x. 147 (1911); Fl. Kouy-Tchéou, 295 (1914). — Mansfeld in Bot. Jahrb. LIX. Beibl. 131, p. 72 (1924). — **Synon. nov.**

*Esquirolia sinensis* Léveillé in Fedde, Rep. Spec. Nov. x. 441 (1912). *Ligustrum lucidum* var. *Esquirolii* Léveillé, Cat. Pl. Yun-Nan, 181 (1916).

CHINA. K w e i c h o u : Lao-ten, *J. Esquirol*, no. 87, June 1904, "fl. blanches" (holotype of *L. Esquirolii*; photo. in A. A.); Pin-tchai, *J. Esquirol*, no. 1577, June 1909, "fl. blanches" (holotype of *Esquirolia sinensis* and *Ligustrum lucidum* var. *Esquirolii*; photo. in A. A.).



*Esquirolia sinensis* was identified by Léveillé himself with *Ligustrum lucidum* in his Flore du Kouy-Tchéou; two years later in his Cat. Pl. Yun-Nan he distinguished it as a variety of *L. lucidum*, but Mansfeld (l. c.) refers it to *L. lucidum* as a synonym.

**Ligustrum japonicum** Thunberg, Fl. Jap. 17, t. 1 (1784). — Nakai in Tokyo Bot. Mag. xxxii. 120 (1918); Fl. Sylv. Kor. x. 33, t. 10 (1921). — Mansfeld in Bot. Jahrb. lix. Beibl. 132, p. 51 (1924).

*Ligustrum Taquetii* Léveillé in Fedde, Rep. Spec. Nov. x. 378 (1912).

KOREA. Q u e l p a e r t : in sylvis Hallaisan, *E. Taquet*, no. 3051, June 1909, "haut 7 à 8 m." (holotype of *L. Taquetii*; photo. in A. A.).

*Ligustrum Taquetii* has been referred to *L. japonicum* by Nakai and by Mansfeld, but differs from typical *L. japonicum* in the narrow, elliptic-oblong, cuneate, thin leaves. The specimen bears no coriaceous leaves of the previous year, as does all the other Quelpaert material before me, as Taquet nos. 1118, 1119, 1120, 3050, 3052 and 3054, Faurie 721 and 1871, and Wilson 9514, but the inflorescence and the flowers agree well with *L. japonicum*.

**Ligustrum sinense** Lour. var. *myrianthum* (Diels) Hoefker in Mitt. Deutsch. Dendr. Ges. xxiv. 57 (1915). — Mansfeld in Bot. Jahrb. lix. Beibl. 132, p. 61 (1924).

*Ligustrum Bodinieri* Léveillé, Fl. Kouy-Tchéou, 295 (1914). — Mansfeld in Bot. Jahrb. lix. Beibl. 132, p. 72 (1924).

CHINA. K w e i c h o u : environs de Kouy-yang, bois de Kin-linchan et mont du Collège, *E. Bodinier*, no. 2249, May 15 and 18, 1898, "grand arbuste" (syntypes of *L. Bodinieri*; photo. in A. A.); item, route de Pin-yue à Kouy-yang, *L. Martin*, May 18, 1899 (locality given on label of no. 2249).

*Ligustrum Bodinieri* was identified as *L. sinense* var. *myrianthum* at the Herbarium in Edinburgh according to a note on the cover of the specimen. The type sheet contains two branches apparently from the two localities cited under no. 2249, while Martin's collection is not represented.

**Ligustrum Quihoui** Carrière in Rev. Hort. 1869, p. 377. — Mansfeld in Bot. Jahrb. lix. Beibl. 132, p. 63 (1924).

*Ligustrum Argyi* Léveillé in Mem. Acad. Ci. Art. Barcelona, ser. 3, xii. 557 (Cat. Pl. Kiang-Sou, 17) (1916). — **Synon. nov.**

CHINA. K i a n g s u : montagnes, *Ch. d'Argy* [1861-74] holotype of *L. Argyi*; photo. in A. A.).

*Ligustrum Argyi* has been identified at the Herbarium in Edinburgh with *L. Quihoui*; the name is not mentioned by Mansfeld.



**Jasminum floridum** Bunge in Mém. Div. Sav. Acad. Sci. St. Pétersb. II. 116 (Enum. Pl. China Bor. 42) (1833). — Kobuski in Jour. Arnold Arb. XIII. 147 (1932).

*Jasminum Argyi* Léveillé in Mem. Acad. Ci. Art. Barcelona, ser. 3, XII. 557 (Cat. Pl. Kiang-Sou, 17) (1916).

CHINA. K i a n g s u : Le-kien, *Ch. d'Argy*, May [1861-74] (holotype of *J. Argyi*; merotype in A. A.).

**Jasminum humile** Linnaeus, Spec. Pl. 7 (1753). — Kobuski in Jour. Arnold Arb. XIII. 150 (1932).

*Jasminum Mairei* Léveillé in Fedde, Rep. Spec. Nov. XIII. 337 (1914); Cat. Pl. Yun-Nan, 179 (1916).

*Jasminum Mairei* var. *siderophyllum* Léveillé, Cat. Pl. Yun-Nan, 179 (1916).

CHINA. Y u n n a n : pâturages des mont à Peling-tsin; 3200 m., *E. E. Maire*, May 1913, "arbuste buissonnant, haut 0.60 m., fl. jaunes inodores" (holotype of *J. Mairei*; merotype in A. A.); haut plateau de Tai-hai, 3200 m., *E. E. Maire*, July [1911-13], "arbuste buissonnant, haut 0.60 m., fl. roses" (holotype of *J. Mairei* var. *siderophyllum*; merotype in A. A.).

Maire gives the color of the flowers of *J. Mairei* var. *siderophyllum* as rose, but this is apparently an error; the flowers of *J. humile* are always yellow.

**Jasminum lanceolarium** Roxb. var. **puberulum** Hemsl. in Jour. Linn. Soc. XXVI. 78 (1889). — Kobuski in Jour. Arnold Arb. XIII. 158 (1932).

*Jasminum Dunnianum* Léveillé in Fedde, Rep. Spec. Nov. XIII. 151 (1914); Fl. Kouy-Tchéou, 293 (1914).

CHINA. K w e i c h o u : Che-ten, *J. Esquirol*, no. 887, June 1906, "arbrisseau, fl. blanches" (holotype of *J. Dunnianum*; merotype in A. A.).

**Jasminum sinense** Hemsley in Jour. Linn. Soc. Bot. XXVI. 80 (1889). — Kobuski in Jour. Arnold Arb. XIII. 159 (1932).

*Lonicera Rehderi* Léveillé in Fedde, Rep. Spec. Nov. x. 145 (1911). — Non Merrill (1905).

*Lonicera Cavaleriei* Léveillé, op. cit. XI. 31 (1912); Fl. Kouy-Tchéou, 63 (1914).

*Jasminum Bodinieri* Léveillé, op. cit. XIII. 151 (1914); Fl. Kouy-Tchéou, 293 (1914).

CHINA. K w e i c h o u : Pan-choui, route de Pin-fa à Tou-yun, *J. Cavalerie*, no. 3038, Apr. 9, 1907 (holotype of *Lonicera Rehderi* and *L. Cavaleriei*; merotype in A. A.); environs de Kouy-yang, mont du



Collège, rocailles, *E. Bodinier*, no. 1890, Sept. 11, 1898 (syntype of *J. Bodinieri*, ex Léveillé); environs de Tsin-gay, Gan-pin, *J. Laborde*, Sept. 1897, "arbuste sarmenteux, fl. jaunes" (syntype of *J. Bodinieri*; merotype in A. A.); environs de Tou-chan, *J. Cavalerie*, July 1897 (syntype of *J. Bodinieri*; merotype in A. A.).

**Jasminum polyanthum** Franchet in Rev. Hort. 1891, p. 270, fig. 69. — Léveillé in Fedde, Rep. Spec. Nov. XIII. 150 (1914). — Kobuski in Jour. Arnold Arb. XIII. 163 (1932).

*Jasminum Blinii* Léveillé in Fedde, Rep. Spec. Nov. XIII. 151 (1914); Cat. Pl. Yun-Nan, 179 (1916).

*Jasminum Delafieldii* Léveillé, Cat. Pl. Yun-Nan, 179 (1916).

CHINA. K w e i c h o u : Gan-chouen, *J. Cavalerie*, no. 3912, May 1912, "liane, fl. blanchâtres" (syntype of *J. Blinii*; merotype in A. A.); Hin-y-hien, *E. Bodinier*, no. 1343, April 10-11, 1898 (syntype of *J. Blinii*, ex Léveillé; haies de Ma-tchang, près Tchen-lin, *J. Esquirol*, April 28, 1906 "très belle fleur en long festons aux haies, rosée à d'intérieur" (holotype of *J. Delafieldii*; photo. in A. A.). Y u n n a n : environs de Yun-nan-sen, March 18, 1897; plaine de Lo-pin-tchéou, April 7, 1897 (syntype of *J. Blinii*; ex Léveillé).

**Jasminum Seguini** Léveillé in Fedde, Rep. Spec. Nov. XIII. 151 (1914); Fl. Kouy-Tchéou, 294 (1914). — Kobuski in Jour. Arnold Arb. XIII. 165 (1932).

CHINA. K w e i c h o u : rochers de la cascade aux environs de Hoang-ko-tchou, *J. Seguin* in herb. *Bodinier*, no. 2354, June 9, 1898, "arbuste liane, fl. blanches" (holotype of *J. Seguini*; merotype in A. A.).

**Jasminum Duclouxii** (Lévl.), comb. nov.

*Melodinus Duclouxii* Léveillé in Fedde, Rep. Spec. Nov. II. 114 (1906).

*Jasminum Schneideri* Léveillé in Monde Pl. sér. 2, XVIII. 31 (1916).

*Jasminum dunicolum* W. W. Smith in Notes Bot. Gard. Edinb. XII. 207 (1920). — Kobuski in Jour. Arnold Arb. XIII. 166 (1932).

CHINA. Y u n n a n : environs de My-tsao, *F. Ducloux*, no. 112, March 4, 1897, "tiges s'enlaçant aux arbres et buissons, fl. blanches, boutons roses" (holotype of *Melodinus Duclouxii* and *J. Schneideri*; photo. in A. A.); Shweli valley, *G. Forrest*, no. 7926, Shweli-Salween divide, *Forrest*, no. 9346; east of Teng-yueh, *Forrest*, no. 8094; Ma-chang-kai valley, *Forrest* no. 9757 (all syntypes of *J. dunicolum*; isotypes in A. A.).

In the original description of *Melodinus Duclouxii* the species is credited to Kweichou, but My-tsao is apparently in the province of Yunnan. The species is not cited either in the Flore du Kouy-Tchéou or in the



Catalogue des plantes du Yun-Nan. In *Monde des plantes* (l. c.) Lèveillé changed the name *Melodinus Duclouxii* to *Jasminum Schneideri*. On the label of the type-specimen the plant was named *Jasminum* in Ducloux's handwriting; this was crossed out and corrected to *Melodinus* by a different hand, but without specific epithet, and under it appears in Lèveillé's handwriting *Jasminum Schneideri* Lévl.

**Jasminum Prainii** Lèveillé in Fedde, Rep. Spec. Nov. x. 148. (1911); XIII. 150 (1914); Fl. Kouy-Tchéou, 294 (1914). — Kobuski in Jour. Arnold Arb. XIII. 167 (1932).

CHINA. K w e i c h o u : route de Pin-fa à Ou-glan, *J. Cavalerie*, Aug. 1908 (holotype; merotype in A. A.).

**Jasminum Beesianum** Forrest & Diels in Notes Bot. Gard. Edinb. v. 253 (1912). — Lèveillé, Fl. Kouy-Tchéou, 293 (1914); in Fedde, Rep. Spec. Nov. XIII. 149 (1914); Cat. Pl. Yun-Nan, 179 (1916). — Kobuski in Jour. Arnold Arb. XIII. 168 (1932).

*Jasminum Valbrayi* Lèveillé in Fedde, Rep. Spec. Nov. XIII. 337 (1914).

CHINA. Y u n n a n : haies, plaine de Tong-tchouan, 2500 m., *E. E. Maire*, May 1913, "arbuste délicat, grimpant, rameaux verts, long 1 à 2 m., fl. d'un rouge carmin" (holotype of *J. Valbrayi*; isotype in A. A.).

*Jasminum Valbrayi* was already referred as a synonym to *J. Beesianum* by Lèveillé in his Catalogue des plantes du Yun-Nan.

**Jasminum multiflorum** (Burm. f.) Andrews, Bot. Repos. VIII. t. 496 (1807). — Kobuski in Jour. Arnold Arb. XIII. 172 (1932).

*Jasminum Esquirolii* Lèveillé in Fedde, Rep. Spec. Nov. x. 147 (1911); Fl. Kouy-Tchéou, 293 (1914).

CHINA. K w e i c h o u : Hang-tong, *J. Esquirol*, no. 729, Jan. 25, 1906 (holotype of *J. Esquirolii*, ex Lèveillé); without precise locality, *J. Esquirol*, no. 949, June 1906, "arbrisseau, fl. blanches" (cited in Fl. Kouy-Tchéou; duplicate in A. A.).

**Jasminum amplexicaule** Buchanan-Hamilton in Wallich, Num. List. 2853 (1930). — D. Don, Gen. Syst. iv. 60 (1837). — Kobuski in Jour. Arnold Arb. XIII. 173 (1932).

*Jasminum laurifolium* var. *villosum* Lèveillé in Fedde, Rep. Spec. Nov. XIII. 151 (1914); Fl. Kouy-Tchéou, 294 (1914). —

**Synon. nov.**

CHINA. K w e i c h o u : gorges du fleuve Hoa-kiang, bord de la route à mi-côte, *E. Bodinier*, April 22, 1897, "arbuste à branches allongées, fleurs blanches" (holotype of *J. laurifolium* var. *villosum*; photo. in A. A.).



The leaves of *J. laurifolium* var. *villosum* are not truncate to subcordate as in typical *J. amplexicaule*, but rounded to broadly cuneate, as in the type of *J. aristatum* Wall. (no. 2853) which is referred as a synonym to *J. amplexicaule* and of which I have a photograph before me; the habit is also very much like that specimen except that the flowers at the end of the lateral branchlets are solitary. The branchlets are only slightly short-pubescent, but the under side of the leaves is loosely covered with short accumbent hairs as in Ford's specimen from Hainan distributed as *J. undulatum*.

## LOGANIACEAE

**Gardneria multiflora** Makino in Tokyo Bot. Mag. vi. 33 (1892), nomen nud.; xv. 103 (1901). — Léveillé, Cat. Pl. Yun-Nan, 171 (1916).

*Sabia Esquirolii* Léveillé in Fedde, Rep. Spec. Nov. ix. 457 (1911); Fl. Kouy-Tchéou, 379 (1915). — **Synon. nov.**

*Paederia Bodinieri* Léveillé in Fedde, Rep. Spec. Nov. xiii. 179 (1914).

*Marlea Cavaleriei* Léveillé, Fl. Kouy-Tchéou, 116 (1914). — **Synon. nov.**

*Rhamnus Pasteuri* Léveillé, Monde Pl. sér. 2, xviii. 31 (1916). — **Synon. nov.**

*Gardneria chinensis* Nakai, Trees Shrubs Jap. i. 316 (1922), nomen: in Tokyo Bot. Mag. xxxviii. 45 (1924). — **Synon. nov.**

CHINA. K w e i c h o u : sur les rochers, *J. Esquirol*, no. 416, June 1905, "arbrisseau, fl. jaune" (holotype of *Sabia Esquirolii*; merotype in A. A.); Kouy-yang, dans la rocaille de la grotte de la grenouille, *E. Bodinier* no. 2616, June 13, 1899 (syntype of *Paederia Bodinieri* and of *Marlea Cavaleriei*; photo. in A. A.); Pin-fa, rochers près Ouen-pi, *J. Cavalerie*, no. 10bis, May 30, 1902 (syntype of *Paederia Bodinieri* and of *Marlea Cavaleriei*; photo. in A. A.); Kouy-yang, mont du Collège, grandes rocailles, *E. Bodinier*, no. 2315, June 9, 1898, "arbuste à tiges allongées lianeuses, fl. jaunes" (holotype of *Rhamnus Pasteuri*; merotype in A. A.).

*Paederia Bodinieri* was transferred by Léveillé to *Marlea* as *M. Cavaleriei*, because there exists an older *M. Bodinieri* Lévl.

I cannot find any good specific differences between *G. chinensis* Nakai and the Japanese *G. multiflora* Makino; the ample Chinese material before me shows great variability in the characters mentioned by Nakai and there seems to be no reliable character to separate it from typical *G. multiflora*.

**Buddleia asiatica** Loureiro, Fl. Cochinch. 72 (1790). — Léveillé, Fl. Kouy-Tchéou, 261 (1914). — Marquand in Kew Bull. Misc. Inform. 1930, p. 195.



*Vitex Esquirolii* Léveillé, Fl. Kouy-Tchéou, 443 (1915). —  
**Synon. nov.**

CHINA. K w e i c h o u : Lo-fou, jardin Église, alt. 800 m., *J. Esquirol*, no. 3536, Feb. 1912 (holotype of *Vitex Esquirolii*; photo. and merotype in A. A.).

*Vitex Esquirolii* was first identified with *Buddleia asiatica* by W. W. Smith according to a note on the type sheet. The synonym is not mentioned by Marquand.

**Buddleia acutifolia** C. H. Wright in Kew Bull. Misc. Inform. 1896, p. 24. — Marquand in Kew Bull. Misc. Inform. 1930, p. 203.

*Buddleia Mairei* Léveillé in Fedde, Rep. Spec. Nov. XIII. 258 (1914);  
Cat. Pl. Yun-Nan, 171 (1916).

CHINA. Y u n n a n : Mo-tsou, 600 m., *E. E. Maire*, May 1911 (holotype of *B. Mairei*; merotype in A. A.).

*Buddleia Mairei* was first identified with *B. acutifolia* by Marquand (l. c.).

**Buddleia acutifolia** f. *albiflora* (Lévl.), comb. nov.

*Buddleia Mairei* f. *albiflora* Léveillé, Cat. Pl. Yun-Nan, 171 (1916).

YUNNAN: without citation of locality and collector.

There is no specimen named *B. Mairei* f. *albiflora* in the Herb. Léveillé.

Forms of *B. acutifolia* with white flowers have been collected in Yunnan near Tali-fu by G. Forrest (no. 2) and near Yunnan by C. Schneider (no. 45); near Lung-chou, Kwangsi, by Morse (nos. 466, 467), and in Upper Burma by Shaik Mokin (no. 63 in Herb. Hort. Calcutt.).

**Buddleia tibetica** W. W. Sm. var. **truncatifolia** (Lévl.) Marquand in Kew Bull. Misc. Inform. 1930, p. 205 (1930).

*Buddleia truncatifolia* Léveillé in Fedde, Rep. Spec. Nov. XIII. 342 (1914); Cat. Pl. Yun-Nan, 171 (1916).

CHINA. Y u n n a n : haies, vallon de Kiao-tche-keou, 2550 m., *E. E. Maire*, Apr. 1903, "arbuste fragile, feuilles laineuses blanches, fl. roses" (holotype; merotype in A. A.).

#### APOCYNACEAE

Determined by R. E. WOODSON, JR.

**Trachelospermum axillare** Hooker f., Fl. Brit. Ind. III. 668 (1882). — Léveillé, Fl. Kouy-Tchéou, 31 (1914).

*Melodinus Chaffanjonii* Léveillé in Fedde, Rep. Spec. Nov. II. 114 (1906).

*Maesa scandens* Léveillé in Fedde, Rep. Spec. Nov. x. 375 (1912);  
Fl. Kouy-Tchéou, 286 (1914). — **Synon. nov.**

*Periploca astacus* Léveillé, Fl. Kouy-Tchéou, 43 (1914).



CHINA. K w e i c h o u : precise locality lacking, *J. Esquirol*, no. 399, June, 1905, "arbrisseau grimpante; fls. roses, sans odeur" (holotype of *Maesa scandens*; merotype in A. A.); Ma-jo, *J. Cavalerie*, no. 2972, July, 1900 (fruiting holotype of *Periploca astacus*; merotype in A. A.); environs de Kouy-yang, mont du Collège, *J. Chaffanjon*, no. 2302, June 9, 1898, "liane ligneuse; fleurs blanches" (holotype of *Melodinus Chaffanjoni*; photo. in A. A.).

*Trachelospermum axillare* is a rather frequent liana from northeastern India (Sikkim) to southeast-central China (Hupeh), under which Lévillé himself reduced to synonymy his *Melodinus Chaffanjoni* in *Fl. du Kouy-Tchéou*, 31 (1914). The synonymy of *Periploca astacus* was first discovered by C. K. Schneider in Sargent, *Pl. Wilson*. III. 335 (1916).

**Trachelospermum gracilipes** Hooker f., *Fl. Brit. Ind.* III. 668 (1882).

*Melodinus Cavaleriei* Lévillé in Fedde, *Rep. Spec. Nov.* II. 113 (1912).

*Trachelospermum rubrinerve* Lévillé, *Fl. Kouy-Tchéou*, 32 (1914). — **Synon. nov.**

*Trachelospermum gracilipes* Hook. f. var. *Cavaleriei* (Lévillé) Schneider in Sargent, *Pl. Wilson*. III. 332 (1916). — **Synon. nov.**

*Trachelospermum divaricatum* (Thunb.) Kanitz var. *brevisepalum* Schneider in Sargent, *Pl. Wilson*. III. 338 (1916). — **Synon. nov.**

CHINA. K w e i c h o u : environs de Tou-chan, *J. Cavalerie*, June 3, 1899 (holotype of *Melodinus Cavaleriei*; merotype and photo. in A. A.); Kouy-yang, mont du Collège, *J. Chaffanjon*, April, 1898 (holotype of *Trachelospermum rubrinerve*; merotype in A. A.).

*Trachelospermum gracilipes* occurs from northeastern India to southeast-central China (Hupeh) upon the continent of Asia, and also upon Formosa and the Liu-kiu Islands. In spite of the wide range, its characters appear too stable to permit varietal segregation at present. Schneider in Sargent, *Pl. Wilson*. III. 337 (1916) sought to distinguish *T. gracilipes* and *T. divaricatum* upon a fancied slight difference in length of the calyx-lobes, but was obliged to except *T. divaricatum* var. *brevisepalum* in his key to species. A revision of the Asiatic species of *Trachelospermum* is in preparation by the present writer.

**Trachelospermum Dunnii** Lévillé, *Fl. Kouy-Tchéou*, 31 (1914); Schneider in Sargent, *Pl. Wilson*. III. 340 (1916).

*Melodium Dunnii* Lévillé in Fedde, *Rep. Spec. Nov.* IX. 453 (1911). sphalm.

*Melodinus Dunnii* Lévillé, *Fl. Kouy-Tchéou*, 31 (1914), *in synonym.*

CHINA. K w e i c h o u : without locality, *J. Cavalerie* (holotype; merotype in A. A.); Pin-fa, bois de Si-tchéou-gai, *J. Cavalerie*, no. 558,



Sept. 29, 1902 (photo. in A. A.); Pin-fa, *J. Cavalerie*, no. 344, Aug. 31, 1902 (photo. in A. A.); environs de Kouy-yang, mont du Collège, *J. Chaffanjon* in hb. *Bodinier*, April 25, 1898 (fragment and photo. in A. A.); the three last specimens are cited in Fl. du Kouy-Tchéou.

*Trachelospermum Dunnii* forms a very distinctive element of the genus *Trachelospermum* because of its general, ferruginous indument.

**Trachelospermum Bodinieri** (Léveillé) Woodson, comb. nov.

*Melodinus Bodinieri* Léveillé in Fedde, Rep. Spec. Nov. II. 113 (1912). — **Synon. nov.**

*Trachelospermum cathayanum* C. K. Schneider in Sargent, Pl. Wilson. III. 333 (1916). — **Synon. nov.**

CHINA. K w e i c h o u : environs de Kouy-Yang, mont. du Collège, *J. Chaffanjon*, no. 2267, May 15, 1898, "liane sous-ligneuse; fleurs blanches" (holotype of *Melodinus Bodinieri*; photo. in A. A.).

This species is one of the most frequently distributed of the genus from southeastern China, and the type specimen (Chaffanjon 2267) agrees closely with that of *T. cathayanum* (Wilson 2348). Unfortunately, several others of the specimens ascribed to *T. cathayanum* by Schneider at the time of original publication are more correctly referable to other species, notably *T. jasminoides* (Lindl.) Lem., *T. crocostomum* Stapf, and *T. gracilipes* Hook. f.

**Arduina Carandas** (L.) K. Schumann in Engler & Prantl, Nat. Pflanzenfam. IV -2, p. 127 (1895).

*Damnacanthus Esquirolii* Léveillé in Fedde, Rep. Spec. Nov. x. 435 (1912); Cat. Pl. Yun-Nan, 245 (1915). — **Synon. nov.**

CHINA. Y u n n a n : Kouai-tien, *J. Esquirol*, no. 1508, May 16, 1909 (holotype of *Damnacanthus Esquirolii*; merotype in A. A.).

This species, superficially somewhat reminiscent of the rubiaceous *Damnacanthus*, does not appear to be as frequent in southeastern China as in the adjacent mountains of India. It is notoriously variable.

**Wrightia Schlechteri** Léveillé in Fedde, Rep. Spec. Nov. XI. 67 (1912); Fl. Kouy-Tchéou, 32 (1914).

CHINA. K w e i c h o u : ruisseau de La-jong, *J. Esquirol*, no. 111, June, 1904, "fleur jaune foncée" (holotype; merotype in A. A.).

This species is referable to the section *Bammatophyton* A. DC. of *Wrightia*. The flowers are dull yellow, with a remarkable corona consisting of five antepetalous oblanceolate-elliptic segments, narrowly acute, entire or subentire, 8-9 mm. long, and five alternating segments, deeply subulate-bifid, 1.5-2.0 mm. long, which are necessary to separate the plants properly from *W. pubescens* R. Br. Apparently the closest



relative of *W. Schlechteri* is *W. sikkimensis* Gamble, which bears scarlet flowers with a somewhat different corona.

**Melodinus khasianus** Hooker f., Fl. Brit. Ind. III. 629 (1882).

*Trachelospermum Esquirolii* Léveillé, Fl. Kouy-Tchéou, 32 (1912). —

**Synon. nov.**

CHINA. K w e i c h o u : Tchéo-chou, *J. Esquirol*, no. 750, Aug. 1905, "arbrisseau, fleurs blanches" (holotype of *Trachelospermum Esquirolii*; merotype and photo. in A. A.).

The corolla-tube of this plant is very slightly longer than that of the typical representation of the species in northern India, but appears clearly conspecific.

**Melodinus Seguini** Léveillé in Fedde, Rep. Spec. Nov. II. 114 (1906); Fl. Kouy-Tchéou, 30 (1914).

*Melodinus flavus* Léveillé in Fedde, Rep. Spec. Nov. XI. 548 (1913). —

**Synon. nov.**

*Melodinus Esquirolii* Léveillé in Fedde, Rep. Spec. Nov. XI. 549 (1913). — **Synon. nov.**

*Melodinus edulis* Léveillé in Fedde, Rep. Spec. Nov. XI. 549 (1913); Fl. Kouy-Tchéou, 30 (1914). — **Synon. nov.**

CHINA. K w e i c h o u : cascade de Hoangko-chou, sur les rochers, *J. Séguin* in hb. *Bodinier*, no. 2390, June 9, 1898 (holotype of *Melodinus Seguini*; merotype and photo. in A. A.); Ché-ten, *J. Esquirol*, no. 886, June, 1906 (holotype of *M. Esquirolii*; photo. in A. A.); Lo-fou, Aug., 1909; Ly-po, Febr. 1900, *J. Cavalerie*, no. 3412 (holotype of *M. flavus*; in herb. Edinburgh; photo. in A. A.); Gan-chouen, rochers, *J. Cavalerie*, no. 3802 (two sheets, flowering and fruiting), July, 1910 (holotype of *Melodinus edulis*; merotype of flowering specimen and photos. in A. A.).

Much has been made of the faucal corona of *Melodinus* as a specific criterion. Consequently, it is fortunate that flowering material is relatively abundant upon the type sheets of three of Léveillé's species of the genus, now deposited in the herbarium of the Royal Botanic Garden at Edinburgh. Although superficially quite similar, and one might have been pardoned for almost immediately placing them together, a careful scrutiny recently was made of the faucal coronas of two or three flowers from the packets upon each sheet in an effort both to segregate these species if possible and to test the constancy of this character upon specimens of superficially identical aspect.

Two flowers were dissected from Esquirol 886, the type of *M. Esquirolii* Lévl. Within one flower seventeen corona segments were counted with the aid of a binocular dissecting microscope and a Silverman illu-



minator. The segments varied indefinitely from 0.05-0.17 cm. in length; entire, or occasionally bifid or trifid, and oblong-linear in shape. Within the other but twelve segments were found which were all entire, varying from 0.07-0.12 cm. in length. Two flowers also were examined from Cavalerie 3412, the type of *M. flavus* Lévl. The orifice of one bore eleven corona segments, linear-trigonal in shape and 0.12-0.6 cm. long; the other bore sixteen segments of nearly the same shape as those of the first, varying from 0.1-0.45 cm. in length. The segments of the first corona were found occasionally to bear a small tooth-like segment near the base. Within three flowers from Cavalerie 3802, the type of *M. edulis* Lévl. similar variability was manifest. The first corolla contained ten segments rather broadly oblong in shape, entire, and ranging from 0.08-0.12 cm. in length. The second bore twelve segments of roughly similar shape as those of the first, but with occasional, basal teeth as found in one specimen of *M. flavus*. These segments were 0.05-0.15 cm. long. The third flower was found to have twelve segments somewhat more narrowly oblong, entire, or with inconspicuous basal teeth, and 0.08-0.2 cm. long. Although the fragments of Séguin 2390, type of *M. Seguini* Lévl., were insufficient for detailed examination, the available material strongly supports classification with the preceding.

Quite recently another specimen of *Melodinus* has been collected in southern Szechuan (F. T. Wang 23181 in herb. Missouri Bot. Garden) which closely corresponds to the types of Léveillé's species of the same genus which have just been discussed, except with respect to the faucal corona, which consists merely of solitary and very obscure protuberances of unequal size and shape alternating with the corolla lobes. This writer is strongly inclined toward the position that Wang 23181 is referable to the polymorphic species *M. Seguini* Lévl.

With the range of variability of the faucal corona of *Melodinus* as elastic as it has been shown to be, from even the brief examination which has just been outlined, considerable doubt arises as to the use of this character as the basis for fine division of specific units. Nevertheless this criterion has been made the chief key character for the differentiation of ten species of the genus indigenous to French Indo-China by Pitard,<sup>1</sup> who is able to separate them by means of such features of the corona segments as whether present or absent; five or ten; free or united at the base; entire or divided; bifid or multifid, with an implication of regularity manifestly lacking in the four species of the genus discovered by Léveillé in closely neighboring southern China. An intensive evaluation of the species of *Melodinus* is much to be desired.

<sup>1</sup>Pitard in Lecomte, Fl. Gén. Indo-Chine, III. 1101 (1933).



***Alstonia yunnanensis*** Diels in Notes Bot. Gard. Edinb. v. 165 (1912). — Léveillé, Cat. Pl. Yun-Nan, 10 (1915).

*Acronychia Esquirolii* Léveillé, Fl. Kouy-Tchéou, 374 (1915).

*Alstonia Esquirolii* Léveillé, Cat. Pl. Yun-Nan, 10 (1915). —

**Synon. nov.**

CHINA. K w e i c h o u : ruisseau derrière Bo-ly et chemin de Kéou-tin, *J. Esquirol*, no. 3212, June, 1911 (holotype of *Acronychia Esquirolii*; merotype and photo. in A. A.); precise locality lacking, *J. Esquirol*, no. 740, Aug., 1905 (holotype of *Alstonia Esquirolii*; photo. and merotype in A. A.); Y u n n a n : sous bois, collines de Mi-tsau, alt. 2000 m., *E. E. Maire*, July, 1911-13, "arbuste, haut 1.20 m." (under *A. yunnanensis* in hb. Léveillé; fragment in A. A.).

Strangely enough, *Acronychia Esquirolii* and *Alstonia Esquirolii* bear no bibliographical relationship. Léveillé apparently realized the proximity of his *Alstonia Esquirolii* to *A. yunnanensis*, but suggested no differentia.

***Alstonia Mairei*** Léveillé, Cat. Pl. Yun-Nan, 9 (1915).

*Wikstroemia Hemsleyana* Léveillé in Bull. Géog. Bot. xxv. 41 (1915). — **Synon. nov.**

CHINA. Y u n n a n : rochers de Kiang-ti, alt. 2300 m., *E. E. Maire*, July, 1912, "arbuste, feuilles résistantes, fl. blanches" (holotype of *Alstonia Mairei*; merotype in A. A.); mont. de Mo-tsou, alt. 800 m., *E. E. Maire*, date lacking, "arbuste toujours verte, fl. blanches" (holotype of *Wikstroemia Hemsleyana*; merotype in A. A.).

Closely related to the preceding, but differing notably in the larger flowers and glabrous foliage. Both *A. yunnanensis* and *A. Mairei* are referable to the section *Blaberopus* of *Alstonia*, having a conspicuous, two-lobed disk, which about equals the ovary in the former, and is somewhat shorter in the latter species.

***Aganosma cymosa*** (Roxb.) G. Don, Gen. Syst. iv. 77 (1838).

*Echites cymosa* Roxburgh, Fl. Ind. II. 16 (1832).

*Aganosma Schlechterianum* Léveillé in Fedde, Rep. Spec. Nov. ix. 325 (1911). — **Synon. nov.**

*Trachelospermum Navillei* Léveillé, Fl. Kouy-Tchéou, 32, (1914). — **Synon. nov.**

CHINA. K w e i c h o u : rochers à Lao-ten, *J. Esquirol*, no. 100, June, 1904 (holotype of *Aganosma Schlechterianum*; merotype and photo. in A. A.); Lo-hou, buissons, alt. 900 m., *J. Esquirol*, no. 3653, June 1912 (holotype of *Trachelospermum Navillei*; merotype in A. A.).

Apparently rare in southeastern China, this species is of frequent occurrence in the closely neighboring provinces of India. Schneider



(Sargent, Pl. Wilson. III. 336. 1916) referred *T. Navillei* to *Aganosma cymosa* var. *elegans* Hook. f., a variety with purplish flowers from the Malay Peninsula. Léveillé expressly described the flowers of his species as white, coinciding with the typical variety of *A. cymosa* in this particular.

**Sindechites Esquirolii** (Léveillé) Woodson, comb. nov.

*Parameria Esquirolii* Léveillé in Fedde, Rep. Spec. Nov. IX. 325 (1911).

CHINA. K w e i c h o u : haies, precise locality lacking, *J. Esquirol*, no. 427, June, 1905, "fl. blanches" (holotype; merotype and photo. in A. A.).

This species differs from *S. Henryi* Oliv. in such characters as the smaller corolla with the tube scarcely three times exceeding the calyx lobes, the ovary nearly twice surpassing the nectaries, the anthers with narrow, subparallel auricles and linear, apical hair-tuft nearly as long as the anther proper inserted slightly below midway within the corolla tube, and the leaves with closer, subhorizontal venation. *Sindechites Henryi* is from the province of Hupeh.

**Alyxia Schlechteri** Léveillé in Fedde, Rep. Spec. Nov. IX. 453 (1911).

CHINA. K w e i c h o u : Lo-fou, rivière de l'ouest, sud de Tinfan, bois, rochers au sud, *J. Cavalerie*, no. 1871, March, 1904 (holotype; merotype and photo. in A. A.).

Doubtfully distinct from *A. angustifolia* Ridl. which it antedates. Our fragments have been insufficient for critical comparison.

**Alyxia Bodinieri** (Léveillé) Woodson, comb. nov.

*Daphne Bodinieri* Léveillé in Fedde, Rep. Spec. Nov. XIII. 258 (1914).

*Wikstroemia Bodinieri* Léveillé, Fl. Kouy-Tchéou, 417 (1915).

CHINA. K w e i c h o u : environs de Tsin-gay à Tchao-se, bois rocailleux de la montagne, *J. Laborde*, no. 2700, Sept. 7, 1899, "fort arbuste à branches allongées, fl. jaunes" (holotype; merotype in A. A.); same locality, *J. Cavalerie*, no. 1202, July 1903 (cited in Fl. du Kouy-Tchéou; photo. in A. A.).

Near *A. pumila* Hook. f., differing in the pubescent inflorescence and somewhat larger foliage.

#### DOUBTFUL SPECIES

**Trachelospermum Cavaleriei** Léveillé, Fl. Kouy-Tchéou, 31 (1914), "*Cavaleri*."

CHINA. K w e i c h o u : ouest de Lo-fou, pente de rivière, *J. Cava-*



lerie, no. 2643, "liane à suc abondant" (holotype; merotype and photo. in A. A.).

The type specimen, consisting of a short branch bearing a pair of linear-fusiform follicles and two leaves, is insufficient for critical determination. It appears unlikely that it represents a species of *Trachelospermum*, because of the unusual shape and venation of the foliage. It is tentatively suggested that it may be referable to the genus *Wrightia*. An annotation upon the original label suggests the possibility of *Sindechites Henryi* Oliv., a species with very different foliage. The fruit of *Sindechites* is unknown.

ASCLEPIADACEAE

Determined by R. E. WOODSON, JR.

**Stephanotis yunnanensis** Léveillé, Cat. Pl. Yun-Nan, 14 (1915).

CHINA. Y u n n a n : sous-bois a Tchéou-kia-tse-tang, alt. 2550 m., *E. E. Maire*, June, 1911, "arbuste grimpante, fl. blanches à biseré violet" (holotype; merotype in A. A.).

Six species of the small-flowered section *Jasminanthes* (Blume) Hemsl. of *Stephanotis* are known from eastern Asia and the adjacent archipelagos, among which *S. yunnanensis* may be distinguished as follows:

Corona manifest, the lobes free, adnate to the anthers.

Corona lobes not surpassing the anthers.

Plants manifestly pubescent; corolla lobes equalling or surpassing the tube.

Calyx lobes ovate, 5-7 mm. long; plants of southeastern China (Hongkong) .....*S. chinensis* Champ.

Calyx lobes linear, 10 mm. long; plants of the Liukiu Islands.

*S. lutchuensis* Koidz.

Plants glabrous or virtually so; corolla lobes much shorter than the tube; plants of southwestern China (Yunnan)

*S. yunnanensis* Lévl.

Corona lobes manifestly surpassing the anthers; plants of the Malay Peninsula .....*S. parviflora* Ridl.

Corona not manifest.

Corolla lobes equalling or surpassing the tube; plants of the Malay Peninsula .....*S. Maingayi* Hook. f.

Corolla lobes shorter than the tube; plants of Borneo

*S. suaveolens* (Blume) K. Schum.

**Marsdenia yunnanensis** (Lévl.) Woodson, comb. nov.

*Gongronema yunnanense* Léveillé, Cat. Pl. Yun-Nan, 13 (1915).

CHINA. Y u n n a n : broussailles des collines à Ku-long-tchang, alt. 800 m., *E. E. Maire*, date lacking, "arbuste grimpante, feuilles caduques, fl. blanche rosée" (holotype; merotype in A. A.).



This species finds its most obvious affinities with *M. lucida* Edgew., *M. oreophila* W. W. Smith, and *M. Griffithii* Hook. f., although it is probably most closely related to the first enumerated, differing notably in the few (3-5)-flowered umbels, and broadly acute corona scales which are conspicuously surpassed by the hyaline tips of the anthers. The Asiatic species of *Marsdenia* are badly in need of a monographic treatment such as that of Rothe for the species of the western hemisphere.

**Marsdenia Cavaleriei** (Lévl.) Handel-Mazzetti, MS. in herb. Edinburgh, comb. nov.

*Metaplexis Cavalerici* Lévillé, Fl. Kouy-Tchéou, 42 (1914).

CHINA. K w e i c h o u : Houa-liang, *J. Cavalerie*, no. 2155, June, 1904 (holotype; photo. in A. A.).

This species is remarkable because of the membranaceous texture of the ovate corona segments.

**Hoya carnososa** (L.) R. Brown in Mem. Wern. Soc. I. 27 (1809).

*Hoya Lyi* Lévillé, in Bull. Soc. Bot. France, LIV. 369 (1907). —

**Synon. nov.**

CHINA. K w e i c h o u : Tsien-sen-kiao, *J. Ly*, no. 1879, Nov., 1904 (syntype of *H. Lyi*; photo. in A. A.); Lo-pie, rocailles près du marché, *L. Martin & J. Séguin*, no. 1853, Oct. 7, 1897 (syntype of *H. Lyi*; photo. in A. A.).

**Hoya Esquirolii** Lévillé in Fedde, Rep. Spec. Nov. XI. 298 (1912).

CHINA. K w e i c h o u : Lo-fou, sur arbe, *J. Cavalerie*, no. 3484, March, 1909 (syntype; photo. in A. A.); au bac de Pia-ouai, pend en longues ficelles des rochers et des vieux troncs, *J. Esquirol*, no. 2801, May 20, 1912 (syntype; photo. in A. A.).

Either specimen is without flowers for dissection; consequently a decisive opinion cannot be rendered concerning this plant, the foliage of which resembles to some extent that of *H. nummularia* Dcne., with which it may be conspecific.

#### CONVOLVULACEAE

**Porana sinensis** Hemsley in Jour. Linn. Soc. Bot. XXVI. 167 (1890). — Schneider in Sargent, Pl. Wilson. III. 355 (1916).

*Porana Esquirolii* Lévillé in Fedde, Rep. Spec. Nov. IX. 444 (1911); Fl. Kouy-Tchéou, 114 (1914); Cat. Pl. Yun-Nan, 58 (1916). —

**Synon. nov.**

*Porana Delavayi* Gagnepain & Curchet in Lecomte, Not. Syst. III. 153 (1915). — **Synon. nov.**



*Vatica cordata* Hu in Jour. Arnold Arb. xi. 225 (1930). — **Synon. nov.**<sup>1</sup>

CHINA. K w e i c h o u : without precise locality, *J. Esquirol*, no. 976 "fleur bleue (peut-être)" (holotype of *P. Esquirolii*; photo. in A. A.); rochers de Lao-ten, *J. Esquirol*, no. 50, May 20, 1904 (cited under *P. Esquirolii* in Fl. Kouy-Tchéou; duplicate in A. A.).

*Porana Delavayi* is apparently a glabrescent form of *P. sinensis* Hemsl. Lévillé cites it in his Catalogue des plantes de Yun-Nan as a synonym of his *P. Esquirolii* and enumerates under *P. Esquirolii* in his Flore du Kouy-Tchéou Cavalerie's no. 2386 which is one of the syntypes of *P. Delavayi*. The specimens enumerated by Schneider all belong to the glabrescent form which seems to be the common plant in central and western China. The pubescent type, *P. sinensis*, which is based on a specimen from Kwangtung (Ford, no. 290) I have seen only from Kweichou, where it has also been collected by Handel-Mazzetti (no. 10877), and from Kwangsi (R. C. Ching, no. 7426) distributed as *Vatica cordata* Hu. Of the glabrescent forms I have also seen a duplicate of Maire's specimen from Li-tse-pin, Yunnan, one of the syntypes of *P. Delavayi*. As the two forms are easily distinguished and seem to be geographically well separated, the type extending from Kwangtung through Kwangsi to Kweichou, while *P. Delavayi* ranges from Yunnan through Szechuan and Kweichou to Hupeh, the glabrescent variety may be separated as ***P. sinensis* var. *Delavayi*** (Gagnep.) Rehd., var. nov. To this variety also belongs Esquirol's no. 50 from Lao-ten; whether Cavalerie's no. 2386 belongs here or to the type, I am not sure, since I have not seen this number, but as Gagnepain enumerates it without comment under his *P. Delavayi* I assume that it represents the glabrescent variety.

***Porana racemosa*** Roxburgh, Hort. Bengal. 13 (1814), nom. nud.; Fl. Ind. II. 41 (1824). — Schneider in Sargent, Pl. Wilson. III. 361 (1916). — Lévillé, Cat. Pl. Yun-Nan, 59 (1916).

*Porana Gagnepainiana* Lévillé, Cat. Pl. Yun-Nan, 58 (1916). — **Synon. nov.**

CHINA. Y u n n a n : haies de la plaine à Long-ky, 700 m., *E. E. Maire*, June 1912, "arbuste grimpante, fl. blanches" (holotype of *P. Gagnepainiana*; merotype in A. A.).

***Argyreia Seguini*** Vaniot apud Lévillé, Fl. Kouy-Tchéou, 113 (1914); China Revue, 1916, p. 18 (MS.).

<sup>1</sup>The identification of *Vatica cordata* was communicated to me by Professor W. Y. Chun in a letter of Feb. 19, 1931, but I am not aware that this identification has been published.



*Lettsomia Seguini* Léveillé in Fedde, Rep. Spec. Nov. ix. 452 (1911).  
*Argyreia Seguini* Vaniot in herb. ex Léveillé in Fedde, Rep. Spec. Nov. ix. 452 (1911), pro synonym. *Lettsomiae Seguini*.

CHINA. K w e i c h o u : environs de Hoang-ko-chou, dans les rocailles, sur les rochers, *J. Seguin* in hb. *Bodinier*, no. 2438, July 9, 1898 "grande liane sous-ligneuse, bractées florales couleur de chair" (syntype of *Lettsomia Seguini*; photo. in A. A.), and no. 2438bis, Aug. 15, 1898 (syntype of *L. Seguini*; ex Léveillé); rocailles, descente du fleuve, *E. Bodinier*, no. 510, July 28, "liane, fl. blanches" (syntype of *L. Seguini*; photo. in A. A.); Lo-fou, *J. Cavalerie*, no. 3519, April and Aug. 1909 "couleur violette" (probably refers to the bracts) (syntype of *L. Seguini*; photo. in A. A.); route de Pien-yang à Lo-fou, *J. Cavalerie*, no. 2690, Nov. 1905 (syntype of *L. Seguini*; ex Léveillé); Oug-ray, *J. Esquirol*, no. 956, June 1906 "fl. blanche, panachée violet" (syntype of *L. Seguini*; photo. in A. A.).

With Seguin no. 2438 there is a description apparently written by Vaniot which was published with slight changes by Léveillé under *Lettsomia Seguini*.

*Argyreia Seguini* seems closely related to *A. argentea* Choisy and *A. bracteata* Choisy, but is easily distinguished from the former by the leaves being rounded at the base and glabrous above, by larger and broader pink bracts and white corolla appressed-pubescent outside; from the latter it differs in the leaves being quite glabrous above and villous-tomentose, not silky-strigose beneath, in the broader and larger pink bracts and in the white corolla being appressed-pubescent outside except below the middle of the tube, not hirsute to near the base.

#### BORAGINACEAE

***Ehretia Dunniana*** Léveillé in Fedde, Rep. Spec. Nov. xi. 65 (1912); Fl. Kouy-Tchéou, 53 (1914).

CHINA. K w e i c h o u : Lo-fou, *J. Cavalerie*, no. 3479, March 1909 (holotype; photo. in A. A.).

*Ehretia Dunniana* is similar to *E. longiflora* Champ. but differs in the linear-oblong anthers about 1.75 mm. long, in the filaments shorter than the style, in the pubescent calyx and the more densely pubescent inflorescence.

#### VERBENACEAE

***Callicarpa macrophylla*** Vahl, Symb. iii. 13, t. 53 (1794). — P'ei in Mem. Sci. Soc. China, i. no. 3, p. 23 (Verben. China) (1932).

*Callicarpa Dunniana* Léveillé in Fedde, Rep. Spec. Nov. ix. 456 (1911).

*Callicarpa macrophylla* var. *Kouytchensis* Léveillé, Fl. Kouy-Tchéou, 440 (1915), sine descript. — **Synon. nov.**



CHINA. K w e i c h o u : environs de Hoang-ke-chou, vallée de Ko-lin-kiao (Tchen-lin), *J. Seguin* in hb. *Bodinier*, no. 2439, June 20, 1898, "arbuste à fleurs d'un violet-pourpre (syntype of *C. Dunniana*; photo. in A. A.); Long-chan *J. Esquirol*, no. 869, June 1906, "fleurs rouges" (syntype of *C. Dunniana*; merotype in A. A.); sud du Kouytchéou, *J. Cavalerie*, no. 2703, Nov. 1905, "1 à 2 m. de haut, fruit mûr d'un blanc de neige" (syntype of *C. macrophylla* var. *Kouytchensis*; photo. in A. A.); autour de l'église de Lo-fou, *J. Esquirol*, no. 3093, July, Sept. 1911, "fl. rouge, fruits blancs." (syntype of *C. macrophylla* var. *Kouytchensis*; photo. in A. A.).

*Callicarpa Dunniana* was first referred to *C. macrophylla* by P'ei, but no. 2439 in hb. Léveillé was already named *C. macrophylla* Vahl by Bodinier. On the label of his no. 2703 Cavalerie gives the following information: "plante de 1 à 2 m. de haut que les Chinois appellent jan-fau-houa (= teindre-riz-fleur), parce qu'il sen servent pour colorer leur gateaux de riz."

**Callicarpa Bodinieri** Léveillé in Fedde, Rep. Spec. Nov. ix. 456 (1911); Fl. Kouy-Tchéou, 439 (1915).

*Callicarpa Seguni* Léveillé in Fedde, Rep. Spec. Nov. ix. 455 (1911); Fl. Kouy-Tchéou, 440 (1915).

*Callicarpa Feddei* Léveillé in Fedde, Rep. Spec. Nov. x. 439 (1912); Fl. Kouy-Tchéou, 439 (1915).

*Callicarpa Giralddiana* Hesse var. *subcanescens* Rehder in Sargent, Pl. Wilson. III. 368 (1916). — P'ei in Mem. Sci. Soc. China, I. no. 3, p. 34 (Verben. China) (1932). — **Synon. nov.**

CHINA. K w e i c h o u : environs de Gan-pin, rochers, aux Grandes Rocailles, *L. Martin* in herb. *Bodinier*, no. 1996, Oct. 28, 1897, "fruits d'une belle couleur violacée" (syntype of *C. Bodinieri*, photo. in A. A.); environs de Gan-pin, torrent des Ligularia, *L. Martin* in herb. *Bodinier*, no. 2365, June 19, 1898, "arbuste, fl. violettes (syntype of *C. Bodinieri*; merotype in A. A.); Pin-fa, *J. Cavalerie*, no. 1095, June 23, 1923 (syntype of *C. Bodinieri*; photo. in A. A.); without precise locality, *J. Esquirol*, no. 468, June 1905 (holotype of *C. Feddei*; merotype in A. A.). H u p e h : without precise locality, *A. Henry*, no. 5864 (holotype of *C. Giralddiana* var. *subcanescens*; in Gray Herb.).

*Callicarpa Bodinieri* is the oldest name for that very variable species generally known as *C. Giralddiana* and agrees with its pubescent form described as var. *subcanescens*. The type of the latter is slightly more pubescent than Bodinier's no. 2365, one of the syntypes of *C. Bodinieri* and that which should be considered the type (lectotype) of the species, because it is from Bodinier's herbarium and is represented by ample flowering material, while no. 1996 is in fruit; the third syntype was col-



lected by Cavalerie and has the older leaves glabrescent, approaching those of var. *Giraldii*. *Callicarpa Feddei* hardly differs from the type except that the leaves are narrower and smaller. The type of *C. Giraldiana* var. *subcanescens* is somewhat more densely pubescent and agrees in this respect with *C. Seguini*. It seems hardly possible to draw a clear line between the pubescent type and the glabrescent var. *Giraldii*, since they are connected by intermediate forms; the densely pubescent var. *Lyi* is more distinct particularly in its pubescent corolla.

**Callicarpa Bodinieri** Lévl. var. **Lyi** (Lévl.), stat. nov.

*Callicarpa Lyi* Léveillé in Fedde, Rep. Spec. Nov. x. 439 (1912); Fl. Kouy-Tchéou, 439 (1915).

*Callicarpa grisea* Handel-Mazzetti in Anz. Akad. Wiss. Wien, 1921, p. 230 (Pl. Nov. Sin. Forts. 14, p. 4) (1921). — **Synon. nov.**

CHINA. K w e i c h o u : Pin-fa, *J. Cavalerie*, no. 1026, June 3, 1903, "fleurs pourpres rouges" (holotype of *C. Lyi*; photo. and merotype in A. A.). K w a n g s i : circa carbonis minas, 600 m., *Wang-Te-Hui*, Pl. Sin. cur. Handel-Mazzetti, no. 182, spring 1920 (holotype of *C. grisea*; isotype in A. A.).

This at the first glance looks like a distinct species with the grayish white tomentum of the under side of the leaves, of the stem and the inflorescence including the calyx and corolla, but in all other characters it agrees with typical *C. Bodinieri*. By P'ei it is referred to *C. Giraldiana* var. *subcanescens* as a synonym, but is easily distinguished by the much denser whitish pubescence, particularly the upper part of the corolla is fairly densely pubescent outside, while in the type only scattered stellate hairs are present or often entirely lacking.

Besides the specimens cited above W. P. Fang's no. 1235 from Szechuan and L. H. Bailey's specimens collected June 18, 1917 on the Chikungshan, Hupeh-Honan border, belong here.

**Callicarpa Bodinieri** Lévl. var. **Giraldii** (Rehd.), comb. nov.

*Callicarpa Giraldii* "Hesse" Rehder in Bailey, Stand. Cycl. Hort. 11. 629 (1914).

*Callicarpa Giraldiana* Hort. Hesse apud Schneider, Ill. Handb. Laubholz. 11. 1048 (July 1912), nom. nud. — Hesse in Mitt. Deutsch. Dendr. Ges. XXI. 366, 2 figs. (after August 1912), sine descript. — Rehder in Sargent, Pl. Wilson. III. 366 (August 1916). — P'ei in Mem. Sci. Soc. China, 1. no. 3, p. 23 (Verben. China) (1932).

*Callicarpa Mairei* Léveillé, Sert. Yunn. 2 (July 1916). — Cat. Pl. Yun-Nan, 297 (1917).

CHINA. Y u n n a n : forêts des coteaux à Tchen-fong-chan, 800 m., *E. E. Maire*, June 1912 "grande arbuste à feuilles persistentes, fl. jaunâtres" (holotype of *C. Mairei*; photo. in A. A.).



This is a glabrescent form of *C. Bodinieri*, while the preceding variety represents the extreme pubescent form of the species. *Callicarpa Bodinieri* var. *Giraldii* was based originally on cultivated specimens raised in the nursery of H. A. Hesse at Weener, Germany, from seed sent by G. Giraldi from Shensi or northern Hupeh. The first description appeared in 1914 as *C. Giraldii* (l. c.), though it had been mentioned as *C. Giraldiana* without description two years earlier by Schneider (l. c.) and in the same year a few months later photographs of flowering and fruiting branches were published by Hesse, but without description. A Latin description as *C. Giraldiana* appeared in 1916 in *Plantae Wilsoniana* (l. c.). Therefore the valid publication of the species as *C. Giraldii* dates from 1914, though the name *C. Giraldiana* has been generally adopted for it.<sup>1</sup>

**Callicarpa Dielsii** (Lévl.) P'ei in Mem. Sci. Soc. China, I. no. 3, p. 37 (Verben. China) (1932).

*Viburnum Dielsii* Léveillé in Fedde, Rep. Spec. Nov. IX. 443 (1911); Fl. Kouy-Tchéou, 66 (1914).

CHINA. K w e i' c h o u: Pin-fa, *J. Cavalerie*, no. 385, Sept. 4, 1902 (holotype; photo. in A. A.).

This species is very close to the following, but differs chiefly in its pubescence of simple or nearly simple hairs.

**Callicarpa rubella** Lindl. var. **Hemsleyana** Diels in Bot. Jahrb. XXIX. 547 (1900). — P'ei in Mem. Sci. Soc. China, I. no. 3, p. 40 (Verben. China) (1932).

*Callicarpa panduriformis* Léveillé in Fedde, Rep. Spec. Nov. IX. 455 (1911); Fl. Kouy-Tchéou, 440 (1915).

CHINA. K w e i' c h o u: environs de Kouy-yang, mont du Collège, *J. Chaffanjon* in hb. *Bodinier*, no. 2341bis, May 1898, "grande arbuste" (syntype of *C. panduriformis*; photo. in A. A.); environs de Tsin-gay, haies, bois de la montagne, *J. Laborde* in hb. *Bodinier*, no. 2507, Nov. 20, 1898, "jolies baies rouges (syntype of *C. panduriformis*; photo. in A. A.).

*Callicarpa panduriformis* was first identified with *C. rubella* var. *Hemsleyana* by P'ei.

<sup>1</sup>**Callicarpa Bodinieri** var. **Rosthornii** (Diels), comb. nov.

*Callicarpa longifolia* var. *Rosthornii* Diels in Bot. Jahrb. XXIX. 548 (1900).

*Callicarpa Giraldiana* var. *Rosthornii* (Diels) Rehder in Sargent, Pl. Wilson. III. 367 (1916). — P'ei in Mem. Sci. Soc. China, I. no. 3, p. 37 (Verben. China) (1932).

This variety which has been found in Szechuan and Kwangsi differs from typical *C. Bodinieri* chiefly in its smaller and narrower leaves.



**Callicarpa dichotoma** (Lour.) Raeuschel, Nomencl. ed. 3, p. 37 (1797). — P'ei in Mem. Sci. Soc. China I. no. 3, p. 51 (Verben. China) (1932).

*Callicarpa Taquetii* Léveillé in Fedde, Rep. Spec. Nov. XII. 182 (1913). — **Synon. nov.**

KOREA. **Q u e l p a e r t** : in silvis, *E. Taquet*, no. 5876, July 1911 (holotype of *C. Taquetii*; merotype in A. A.).

**Premna parvilimba** P'ei in Mem. Sci. Soc. China I. no. 3, p. 62 (Verben. China) (1932).

*Celastrus yunnanensis* Léveillé, Cat. Pl. Yun-Nan, 32 (1915).

CHINA. **Y u n n a n** : rochers, pied des montagnes a Kiao-kiao, 400 m., *E. E. Maire*, June 1911, "arbuste feuilles persistantes, fl. roses" (holotype of *Celastrus yunnanensis*; photo. and merotype in A. A.).

*Celastrus yunnanensis* was first referred to *Premna* by the writer and later recognized as a distinct species by P'ei, who described it as *C. parvilimba*, since there exists already a *P. yunnanensis* W. W. Sm.

**Premna Bodinieri** Léveillé in Fedde, Rep. Spec. Nov. x. 440 (1912); Fl. Kouy-Tchéou, 443 (1915). — P'ei in Mem. Sci. Soc. China I. no. 3, p. 80 (Verben. China) (1932).

CHINA. **K w e i c h o u** : gorges de Hao-kiang, à la descente à mi-cote, *E. Bodinier*, no. 1583, April 22, 1897, "arbuste à branches allongées, fl. blanches ou blanc-jaunes" (holotype; fragment in A. A.).

**Premna puberula** Pampanini in Nuov. Giorn. Bot. Ital. n. ser. XVII. 701 (1910). — P'ei in Mem. Sci. Soc. China, I. no. 3, p. 85 (Verben. China) (1932).

*Premna Martini* Léveillé in Fedde, Rep. Spec. Nov. x. 440 (1912); Fl. Kouy-Tchéou, 443 (1915).

CHINA. **K w e i c h o u** : environs de Kouy-yang, plaine et montagne dans les haies, *E. Bodinier*, no. 2217, May 18 and 26, 1899, "petit arbuste, fl. jaunâtres" (holotype of *P. Martini*; photo. in A. A.).

*Premna Martini* was first referred to *P. puberula* by W. W. Smith according to a note on the type specimen.

**Premna Cavaleriei** Léveillé in Fedde, Rep. Spec. Nov. x. 439 (1912); Fl. Kouy-Tchéou, 443 (1915). — P'ei in Mem. Sci. Soc. China, I. no. 3, p. 87 (Verben. China) (1932).

CHINA. **K w e i c h o u** : Pin-fa, *J. Cavalerie*, no. 3101, July 2, 1907, "grande arbre, fl. jaune, sale" (holotype; merotype in A. A.).

**Clerodendron Bungei** Steudel, Nomencl. ed. 2, I. 382 (1840).

*Clerodendron foetidum* Bunge in Mem. Sav. Etr. Acad. Sci. St.



Pétersb. II. 126 (Enum. Pl. Chin. Bor. 52) (1833). — P'ei in Mem. Sci. Soc. China, I. no. 3, p. 138 (Verben. China) (1932). — Non D. Don.

*Pavetta Esquirolii* Léveillé in Fedde, Rep. Spec. Nov. XIII. 178 (1914); Fl. Kouy-Tchéou, 371 (1915).

CHINA. K w e i c h o u : Tchéou-mao-tan, *J. Esquirol*, no. 805, July 30, 1905 (syntype of *Pavetta Esquirolii*; photo. in A. A.). Y u n - n a n : vallée de Hong-lou, 600 m., *E. E. Maire*, June 1912 (syntype of *Pavetta Esquirolii*, photo. in A. A.).

*Pavetta Esquirolii* was referred to *Clerodendron Bungei* by the writer and also at Edinburgh according to an undated note on Maire's specimen and doubtfully placed under *C. foetidum* by P'ei.

Besides the characters mentioned by P'ei to distinguish *C. fragrans* and *C. Bungei* the calyx-teeth seem to present good character; they are lanceolate and long-acuminate in the former and triangular-ovate and acute in the latter.

**Clerodendron japonicum** (Thbg.) Sweet, Hort. Brit. 322 (1826). — P'ei in Mem. Sci. Soc. China, I. no. 3, p. 140 (Verben. China) (1932).

*Clerodendron Darrisii* Léveillé in Fedde, Rep. Spec. Nov. XI. 301 (1912).

*Clerodendron Esquirolii* Léveillé, l. c. 302 (1912), non p. 298.

*Clerodendron Leveillei* Fedde apud Léveillé, Fl. Kouy-Tchéou, 442 (1915).

CHINA. K w e i c h o u : Lo-fou, *J. Cavalerie*, no. 3490, Aug. 1909 "arbre" (holotype of *C. Darrisii*; merotype in A. A.); route de Pe-tien à Lo-yen, *J. Esquirol*, no. 123, July 1904, "arbrisseau de 1-2 m., sans division, sommité écarlate" (holotype of *C. Esquirolii*; merotype in A. A.).

*Clerodendron Darrisii* and *C. Esquirolii* are enumerated as synonyms of *C. Leveillei* Fedde by Léveillé in his Flore du Kouy-Tchéou, the name *C. Esquirolii* based on Esquirol's no. 123 having been changed to *C. Leveillei* Fedde on account of the homonym published a few pages ahead and based on Esquirol's no. 2802 which was referred by the writer to *Tacca Paxiana* Limpr. (see note by P'ei in Mem. Sci. Soc. China, I. no. 3, p. 162).

**Clerodendron mandarinorum** Diels in Bot. Jahrb. XXIX. 549 (1900). — P'ei in Mem. Sci. Soc. China, I. no. 3, p. 145 (Verben. China) (1932).

*Clerodendron Bodinieri* Léveillé in Fedde, Rep. Spec. Nov. IX. 325 (1911); Fl. Kouy-Tchéou 441 (1915).

*Clerodendron Cavaleriei* Léveillé in Fedde, Rep. Spec. Nov. X. 439 (1912).

*Clerodendron Bodinieri* var. *Cavaleriei* Léveillé, Fl. Kouy-Tchéou, 441 (1915).



CHINA. K w e i c h o u : environs de Gan-pin, *L. Martin* in hb. *Bodinier*, no. 1721, July 27, 1897, "petit arbre, fl. blanches" (syntype of *C. Bodinieri*, merotype and photo. in A. A.); Kouy-yang, le long des ramparts et devant la chapelle, N. D. de Liesse, *C. Martin* in hb. *Bodinier*, no. 1721, Aug. 2, 1899 (syntype of *C. Bodinieri*; photo. in A. A.); Tchéou-pao-tong, *J. Esquirol*, no. 788, July 23, 1905 (syntype of *C. Bodinieri*; photo. in A. A.); Pin-fa, *J. Cavalerie*, nos. 70 and 167, July 19 and Aug. 12, 1902 (syntypes of *C. Cavaleriei*; photos. in A. A.); Pe-piang, *J. Esquirol*, no. 3722, Aug. 20, 1912, "fleurs blanches" (cited under *C. Bodinieri* var. *Cavaleriei* in Fl. Kouy-Tchéou; duplicate in A. A.).

*Clerodendron Bodinieri* and *C. Cavaleriei* were first referred to *C. mandarinorum* by P'ei. This species has been collected in Kweichou also by Handel-Mazzetti (no. 10884), by Y. Tsiang, nos. 7374 and 8528) and by Steward, Chiao and Cheo (no. 730).

***Caryopteris paniculata*** (Kurz) C. B. Clarke in Hooker f., Fl. Brit. Ind. iv. 597 (1885). — P'ei in Mem. Sci. Soc. China, i. no. 3, p. 176 (Verben. China) (1932).

*Callicarpa Martini* Léveillé in Fedde, Rep. Spec. Nov. ix. 455 (1911); Fl. Kouy-Tchéou, 440 (1915).

CHINA. K w e i c h o u : environs de Hoang-ko-chou, bord du gave, *L. Martin*, no. 2562, Feb. 12, 1899 (holotype of *C. Martini*; photo. in A. A.); Hang-tong, *J. Esquirol*, nos. 304 and 754, Jan. 1905 (cited under *C. Martini* in Fl. Kouy-Tchéou; (photo. of no. 754 and merotype of no. 304 in A. A.).

*Callicarpa Martini* was first referred to *Caryopteris paniculata* by P'ei (l. c.). In Flore du Kouy-Tchéou Esquirol's numbers are cited as 304 and 654, but the second number should read 754, as it appears on the type specimen.

(To be continued)

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